```
=> fil reg
FILE 'REGISTRY' ENTERED AT 12:52:14 ON 06 FEB 2008
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    5 FEB 2008  HIGHEST RN 1001672-38-3
DICTIONARY FILE UPDATES:   5 FEB 2008  HIGHEST RN 1001672-38-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d sta que l31
L24             STR
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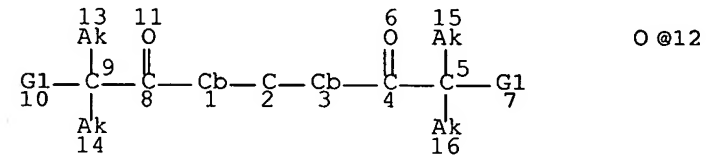


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CONNECT IS M1  RC AT  12
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT  1
GGCAT   IS UNS  AT  3
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
L31          25 SEA FILE=REGISTRY CSS FUL L24

100.0% PROCESSED  776248 ITERATIONS                    25 ANSWERS
SEARCH TIME: 00.00.07


=> d his
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               SET COST OFF

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               E SOMMERLADE/AU
L2            11 S E6,E7
               E HUSLER/AU
L3             5 S E17
               E HUESLER/AU
L4            36 S E17,E18
               E HEUSLER/AU
L5             3 S E3
               E ILG/AU
L6            28 S E43-E46
               E FUCHS/AU
L7           316 S E3-E9,E47
               E BOULMAAZ/AU
L8            25 S E4,E5
               E SOUAD/AU
               E BIRBAUM/AU
L9            50 S E8,E9
               E CIBA/CO
               E CIBA S/CO
L10         2575 S E19-E144/CO,PA,CS
               E E63+ALL
               E E1+ALL
L11         2731 S E2+RT OR E2-E22/PA,CS
L12        29974 S CIBA?/CO,PA,CS
L13            1 S L1 AND L2-L12
               SEL RN

     FILE 'REGISTRY' ENTERED AT 12:38:05 ON 06 FEB 2008
L14           42 S E1-E42
L15           26 S L14 AND 46.150.18/RID AND NR>=2
L16            1 S L15 AND C21H24O5
L17              STR
L18            0 S L17 CSS SAM
L19            0 S L17 SAM
L20              STR
L21            0 S L20
L22              STR L20
L23            0 S L22
L24              STR L22
L25            0 S L24 CSS SAM
L26           12 S L15 AND (C21H24O2 OR C17H18O OR C41H51N3O2 OR C27H39N3O2 OR C
L27            2 S L26 AND C21H21BR3O2
L28            1 S 793686-10-9
L29           14 S L15 NOT L26
L30           15 S L16,L28,L29
L31           25 S L24 CSS FUL
               SAV TEMP L31 TREIDL552/A
L32           10 S L31 NOT L30
L33           14 S L30 NOT 474510-57-1

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L35            3 S L34 AND L1-L13

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L36 3 S L33

FILE 'REGISTRY' ENTERED AT 12:52:14 ON 06 FEB 2008

=> d ide can tot l33

L33 ANSWER 1 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-21-2 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[[[(2-hydroxyethyl)methylamino]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
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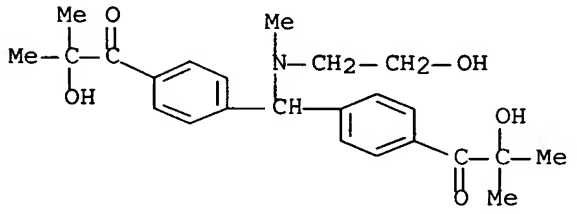
LC STN Files: CA, CAPLUS, USPATFULL



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 2 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-20-1 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
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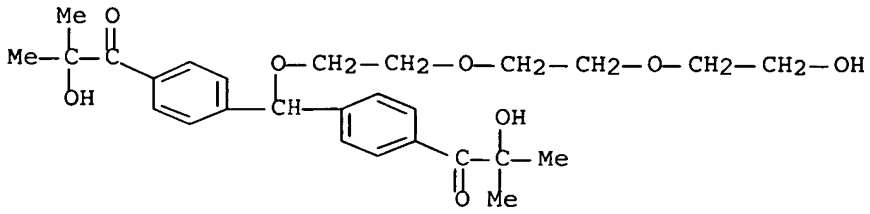
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 3 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-19-8 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
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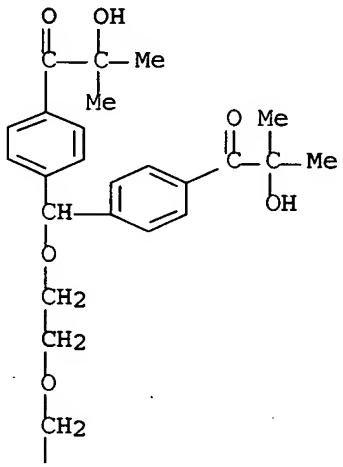
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A



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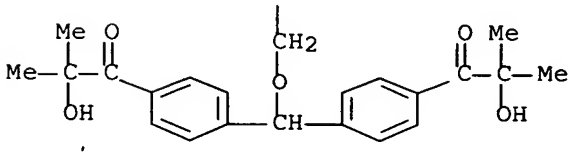


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

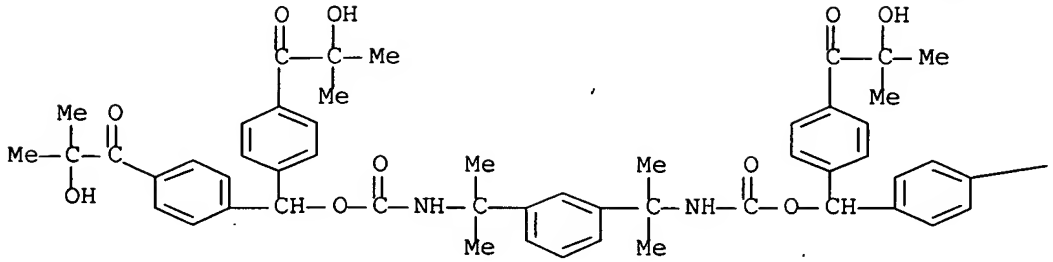
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 4 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-18-7 REGISTRY
ED Entered STN: 07 Dec 2004
CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA

INDEX NAME)
MF C56 H64 N2 O12
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A



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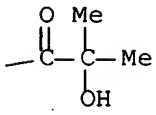

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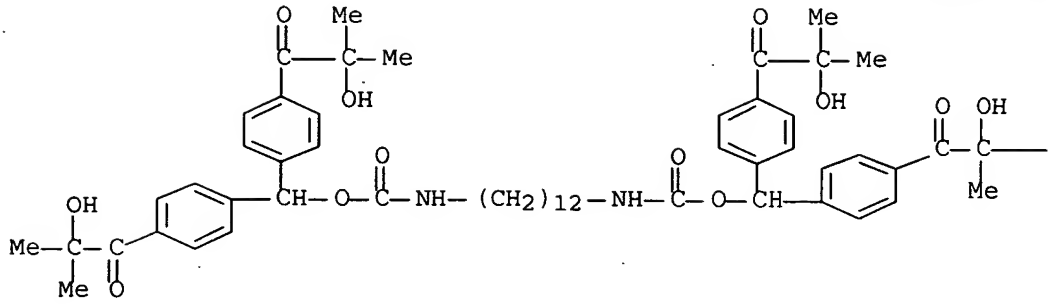
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 5 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-17-6 REGISTRY
ED Entered STN: 07 Dec 2004
CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)
MF C56 H72 N2 O12
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A



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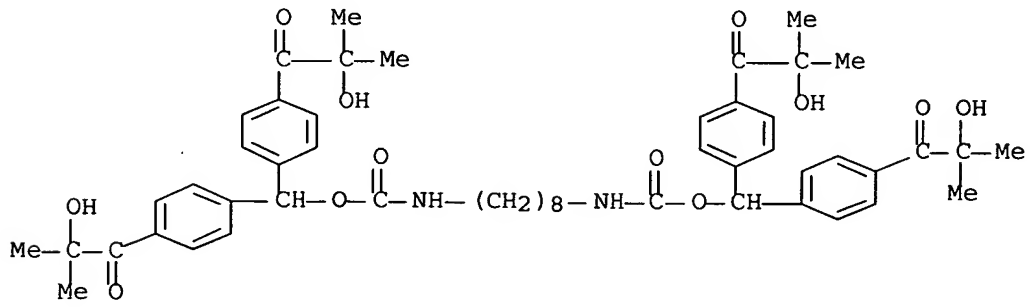
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 6 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN **793686-16-5** REGISTRY
ED Entered STN: 07 Dec 2004
CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)
MF C52 H64 N2 O12
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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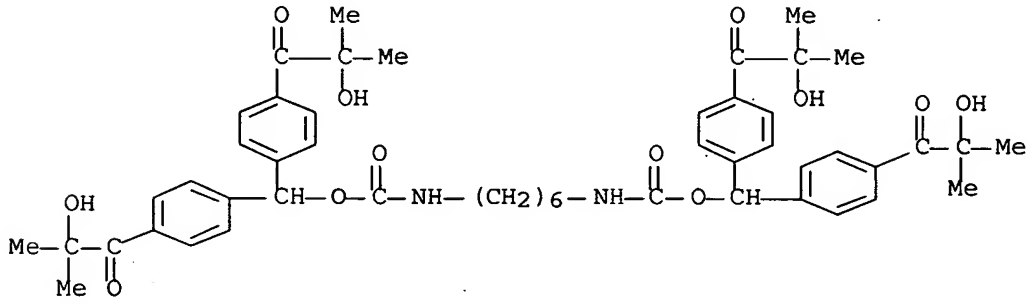
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 7 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-15-4 REGISTRY
ED Entered STN: 07 Dec 2004
CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)
MF C50 H60 N2 O12
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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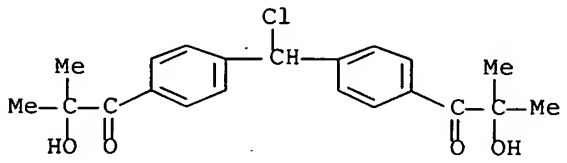
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 8 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-14-3 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(chloromethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane
MF C21 H23 Cl O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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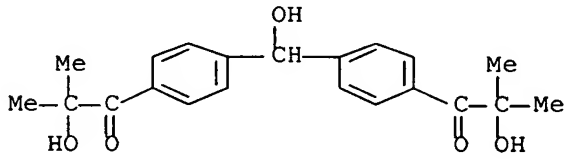
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 9 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN **793686-13-2** REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
MF **C21 H24 O5**
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 10 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN **793686-12-1** REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(methoxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
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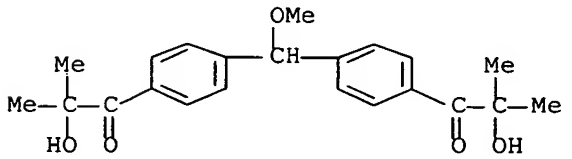
MF C22 H26 O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

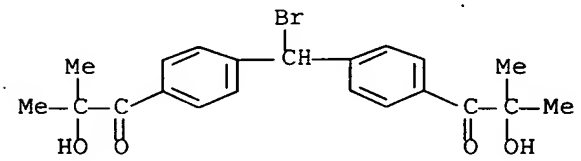


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 11 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-11-0 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane
MF C21 H23 Br O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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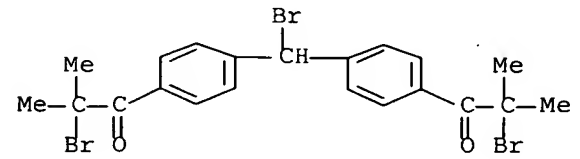
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 12 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-10-9 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-bromo-2-methyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane
MF C21 H21 Br3 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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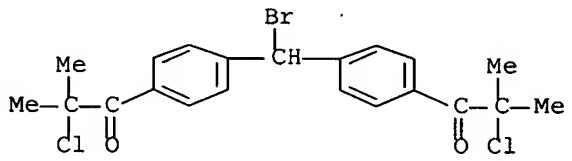
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 13 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN

RN 793686-09-6 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane
MF C21 H21 Br Cl2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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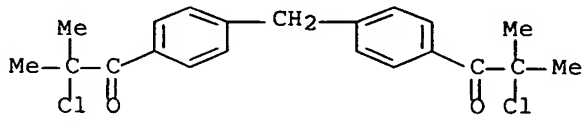
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 14 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 524944-71-6 REGISTRY
ED Entered STN: 04 Jun 2003
CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane
MF C21 H22 Cl2 O2
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

REFERENCE 2: 141:381170

REFERENCE 3: 138:386304

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=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 12:52:30 ON 06 FEB 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 6 Feb 2008  VOL 148 ISS 6
FILE LAST UPDATED: 5 Feb 2008  (20080205/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d l35 bib abs hitstr retable tot

L35  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2008 ACS on STN
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DN   141:425384
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     α-amino ketones for photoinitiators
IN   Sommerlade, Reinhard H.; Huesler, Rinaldo; Ilg,
     Stephan; Fuchs, Andre; Boulmaaz, Souad;
     Birbaum, Jean-Luc
PA   Ciba Specialty Chemicals Holding Inc., Switz.
SO   PCT Int. Appl., 128 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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PRAI	EP 2003-405318	A	20030506	<--	
	WO 2004-EP50689	W	20040504		

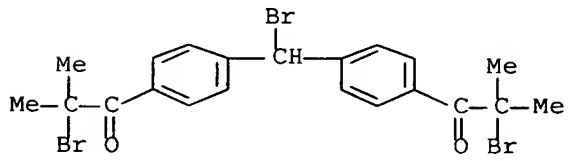
OS MARPAT 141:425384

AB Ketones with lower volatility than Irgacure 2959, useful for curing of coatings and inks, have 1-10 methylenebis(carbonylphenyl) groups with hydroxy, alkoxy, or amino groups substituted on a tertiary C alpha to the carbonyl groups and a heteroatom such as O, Cl, Br, N, and S bonded to the methylene group, such as bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methano l (I). I was manufactured by Friedel-Crafts reaction of diphenylmethane with isobutyroyl chloride, bromination of the resulting intermediate with Br in CCl4, and hydrolysis of the resulting bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane in water-dioxane mixture in presence of Bu4NBr and NaOH.

IT **793686-10-9P**, Bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane
793686-11-0P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromometha
ne **793686-12-1P**, Bis[4-(2-hydroxy-2-
methylpropionyl)phenyl]methoxymethane **793686-14-3P**,
Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane
793686-15-4P 793686-16-5P 793686-17-6P
793686-18-7P 793686-19-8P 793686-20-1P
793686-21-2P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for photoinitiators with low volatility for curing of inks and coatings)

RN 793686-10-9 HCAPLUS

CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-bromo-2-methyl-(9CI) (CA INDEX NAME)



RN 793686-11-0 HCAPLUS

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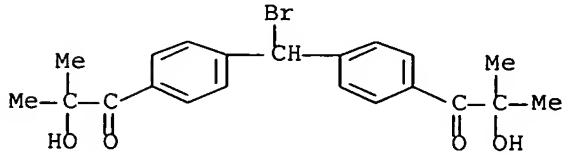
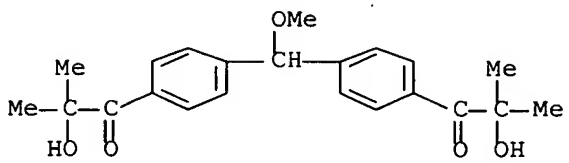


RN 793686-12-1 HCAPLUS

CN 1-Propanone, 1,1'-[(methoxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-14-3 HCAPLUS

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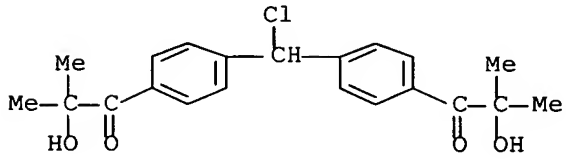
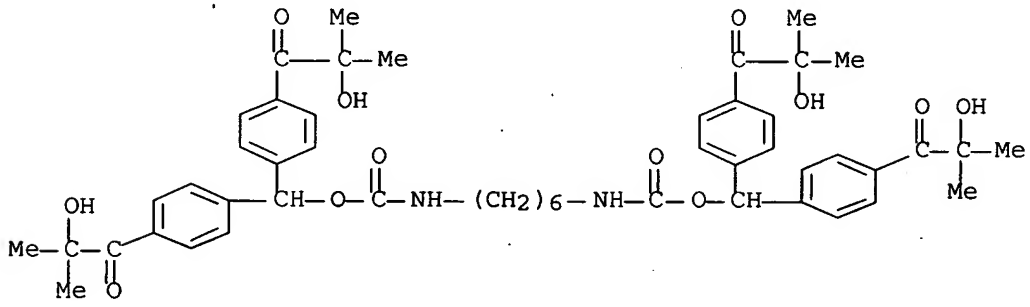


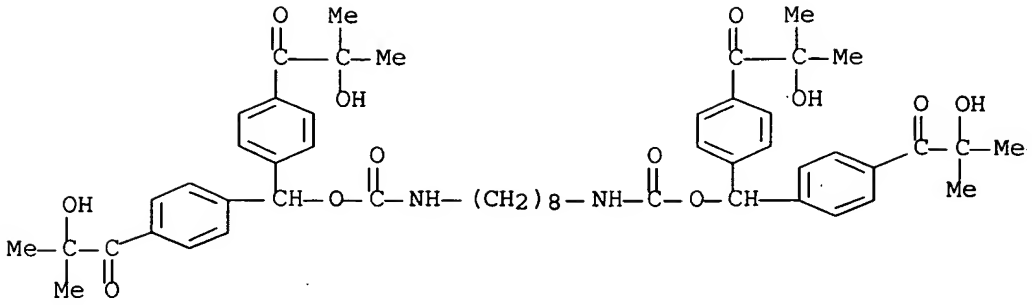
RN 793686-15-4 HCAPLUS

CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



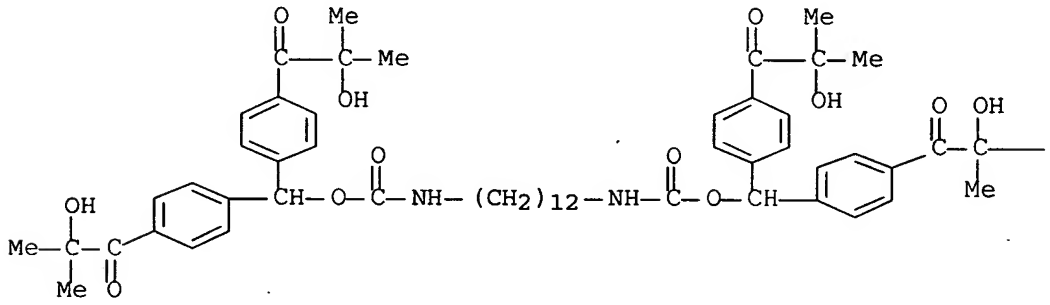
RN 793686-16-5 HCAPLUS

CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-17-6 HCAPLUS
CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

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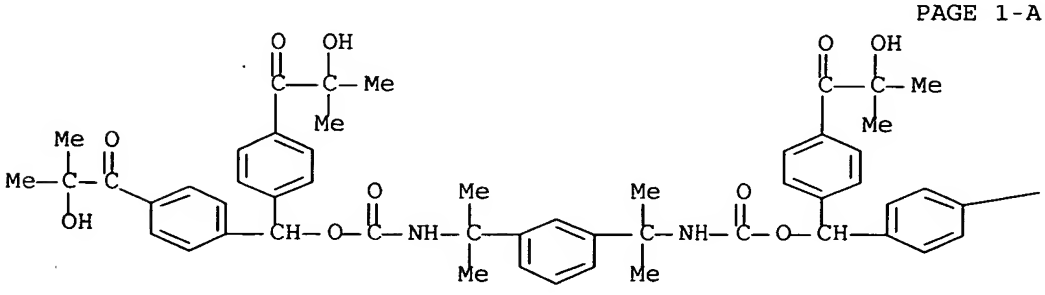
RN 793686-18-7 HCAPLUS
CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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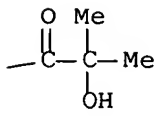
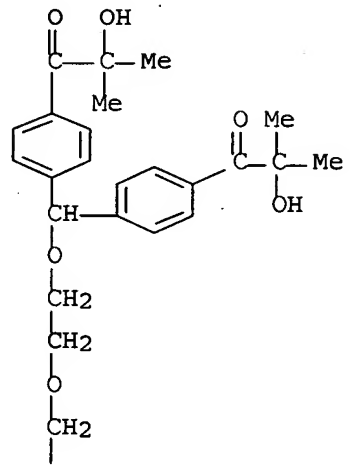
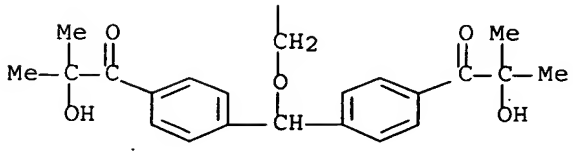


RN 793686-19-8 HCAPLUS
CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

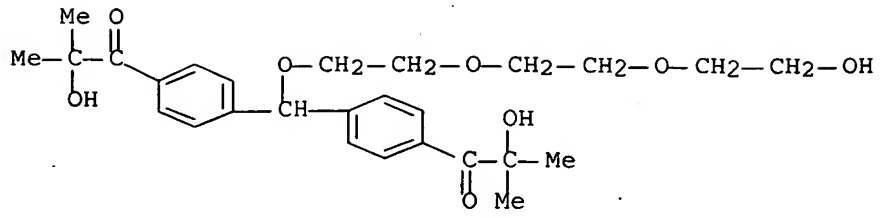
PAGE 1-A



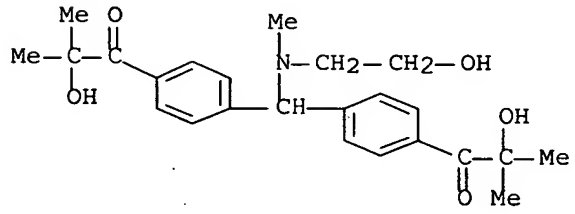
PAGE 2-A



RN 793686-20-1 HCAPLUS
CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

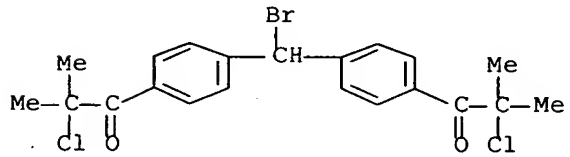


RN 793686-21-2 HCAPLUS
CN 1-Propanone, 1,1'-[[[(2-hydroxyethyl)methylamino]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

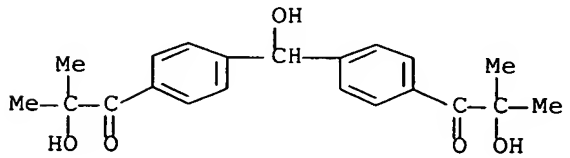


IT **793686-09-6P**, Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane **793686-13-2P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for photoinitiators with low volatility for curing of inks and coatings)

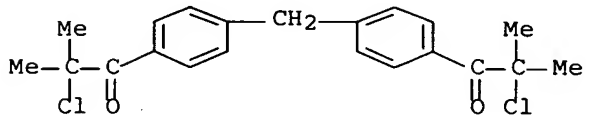
RN 793686-09-6 HCAPLUS
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-13-2 HCAPLUS
CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



IT **524944-71-6P**, Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(precursor; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for photoinitiators with low volatility for curing of inks and coatings)
RN 524944-71-6 HCAPLUS
CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	1997			DE 19700064 A	HCAPLUS
Baudin, G	2002			WO 0248202 A	HCAPLUS
Ciba Geigy Ag	1979			EP 0003002 A	HCAPLUS
Ciba Geigy Ag	1985			EP 0138754 A	HCAPLUS
Merck Patent Gmbh	1981			DE 3008411 A	HCAPLUS
Minnesota Mining & Mfg	1995			WO 9510552 A	HCAPLUS
Sekisui Chem Co Ltd	1992			JP 04011610 A	HCAPLUS

L35 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:905843 HCAPLUS Full-text
DN 141:381170
TI Radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator
IN **Fuchs, Andre**; Villeneuve, Sebastien; Richert, Michelle
PA **Ciba Specialty Chemicals Holding Inc., Switz.**
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004092287	A1	20041028	WO 2004-EP50450	20040406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2519524	A1	20041028	CA 2004-2519524	20040406
EP 1613706	A1	20060111	EP 2004-741450	20040406

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

	CN 1771308	A	20060510	CN 2004-80009579	20040406
	JP 2006524731	T	20061102	JP 2006-505524	20040406
	US 2006209098	A1	20060921	US 2005-553068	20051012
PRAI	EP 2003-405266	A	20030416		
	EP 2003-102322	A	20030728		
	WO 2004-EP50450	W	20040406		

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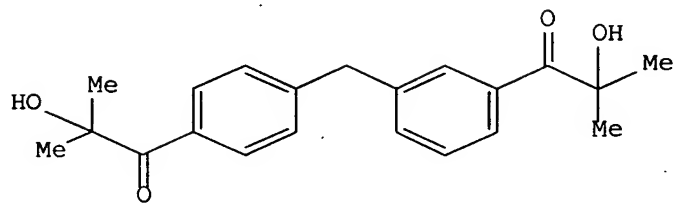

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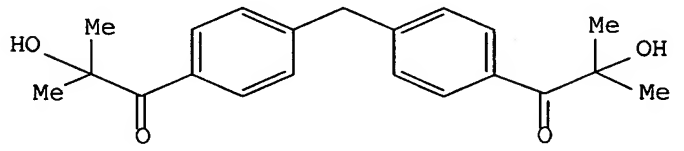


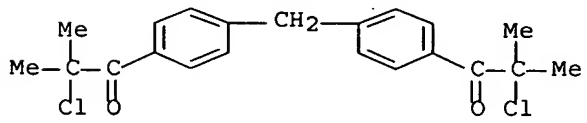
II

AB A process for preparing an ink-jet printed matter, comprises the steps of applying an UV curable ink-jet ink composition comprising a photopolymerizable monomer, oligomer or prepolymer; a colorant and a compound of the formula I or II or mixts. thereof, and optionally a reactive diluent to a recording medium and curing the ink composition on the recording medium by irradiating with UV ray.

IT **524944-71-6P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator)

RN 524944-71-6 HCAPLUS

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Felder, L	1981			US 4308400 A	HCAPLUS
Gehlhaus, J	1982			US 4347111 A	HCAPLUS
Huesler, R	2003			WO 03040076 A	HCAPLUS

L35 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:376800 HCAPLUS Full-text
DN 138:386304
TI Difunctional photoinitiators for curing polymers
IN **Fuchs, Andre; Huesler, Rinaldo;** Schregenberger, Christian; Kunz, Martin
PA **Ciba Specialty Chemicals Holding Inc., Switz.**
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003040076	A2	20030515	WO 2002-EP12160	20021031
	WO 2003040076	A3	20031224		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2462377	A1	20030515	CA 2002-2462377	20021031
	AU 2002346811	A1	20030519	AU 2002-346811	20021031
	EP 1442005	A2	20040804	EP 2002-783054	20021031
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	BR 2002013981	A	20040831	BR 2002-13981	20021031
	CN 1582267	A	20050216	CN 2002-822193	20021031
	JP 2005508378	T	20050331	JP 2003-542125	20021031
	US 2005004249	A1	20050106	US 2004-494593	20040505
	US 7084183	B2	20060801		
	MX 2004PA04347	A	20040811	MX 2004-PA4347	20040507
PRAI	EP 2001-811020	A	20011108		
	WO 2002-EP12160	W	20021031		

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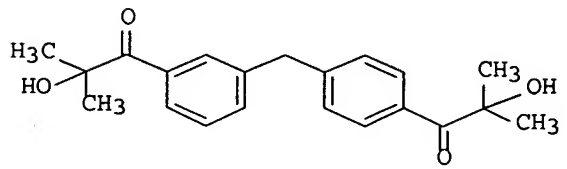

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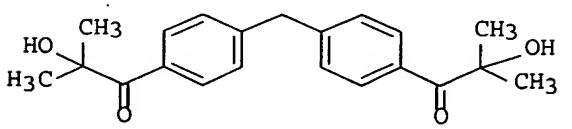


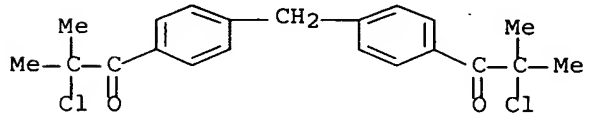
II

AB The invention relates to α-hydroxy ketones of I or II; or their mixts. and their use as photoinitiators. The compds. are prepared by reacting diphenylmethane and isobutyric acid halide in the presence of Friedel-Crafts catalysts, chlorinating and hydrolyzing the resultant mixture, and crystallization The compds. are useful in curing acrylate monomer-based coatings.

IT **524944-71-6P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(difunctional photoinitiators for curing polymers)

RN 524944-71-6 HCAPLUS

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



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CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

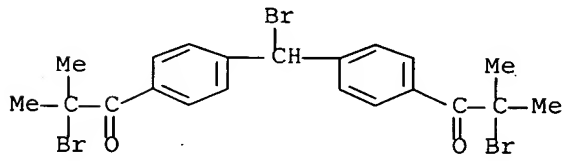
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 5 Feb 2008 (20080205/PD)
FILE LAST UPDATED: 5 Feb 2008 (20080205/ED)
HIGHEST GRANTED PATENT NUMBER: US7328458
HIGHEST APPLICATION PUBLICATION NUMBER: US2008028492
CA INDEXING IS CURRENT THROUGH 5 Feb 2008 (20080205/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 5 Feb 2008 (20080205/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2007
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2007

=> d l36 bib abs hitstr tot

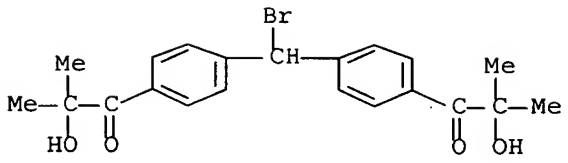
L36 ANSWER 1 OF 3 USPATFULL on STN
AN 2006:315965 USPATFULL Full-text
TI Novel trifunctional photoinitiators
IN Sommerlade, Reinhard H, Neuenburg am Rhein, GERMANY, FEDERAL REPUBLIC OF
Husler, Rinaldo, Basel, SWITZERLAND
Ilg, Stephen, Giebenach, SWITZERLAND
Fuchs, Andre, Schliengen-Obereggenen, GERMANY, FEDERAL REPUBLIC OF
Boulmaaz, Souad, Birsfelden, SWITZERLAND
Birbaum, Jean-Luc, Binningen, SWITZERLAND
PI US 2006270748 A1 20061130
AI US 2004-552952 A1 20040504 (10)
WO 2004-EP50689 20040504
20051013 PCT 371 date
PRAI EP 2003-405318 20030506
DT Utility
FS APPLICATION
LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005, US
CLMN Number of Claims: 15

ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3753
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The Invention relates to novel ketones of formulae (I) and (II) wherein R.sub.1, R.sub.2, R.sub.3 and R.sub.4 are, for example, C.sub.1-C.sub.8alkyl, R.sub.5 is, for example, hydrogen, A is CI, Br, -0-R.sub.7, --NR.sub.8R.sub.9 or --S--R.sub.16, A' is --O--, --NH-- or --NR.sub.8--, X and Y are each independently of the other --O--R.sub.10 or --N(R.sub.11)(R.sub.12), n is an integer from 1 to 10, R.sub.6 is, for example, an n-valent radical of linear or branched C.sub.2-C.sub.20alkyl the carbon chain of which may be interrupted by cyclohexanediyl, phenylene, --CH(OH)--, --C(C.sub.2H.sub.5)(CH.sub.2-- CH.sub.2--OH)--, --C(CH.sub.3)(CH.sub.2--CH.sub.2--OH)--, --C(CH.sub.2--CH.sub.2--OH).sub.2--, --N(CH.sub.3)--, --N(C.sub.2H.sub.5)--, --N(CH.sub.2--CH.sub.2--OH)--, --CO--O--, --O--CO--, --P(CH.sub.2--CH.sub.2--OH)--, --P(O)(CH.sub.2--CH.sub.2--OH)- -, -0-P(O--CH.sub.2--CH.sub.2--OH)--O--, -0-P(O)(0-CH.sub.2--CH.sub.2--OH)--O--, --O-cyclohexanediyl-C(CH.sub.3).sub.2-Cyclohexanediyl-O--, --O-phenylene-C(CH.sub.3).sub.2-phenylene-O--, --O-phenylene-CH.sub.2-phenylene-O--, --Si(CH.sub.3).sub.2--, -0-Si(CH.sub.3).sub.2--O--, --O--Si(CH.sub.3)(0-CH.sub.3)--O--, --Si(CH.sub.3)(R.sub.17)--O--Si(CH.sub.3)(R.sub.18)--, 5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and/or by from one to nine oxygen atoms. ##STR1##

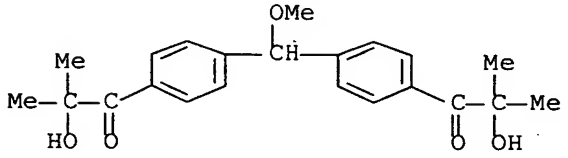
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **793686-10-9P**, Bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane **793686-11-0P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane **793686-12-1P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methoxymethane **793686-14-3P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane **793686-15-4P 793686-16-5P 793686-17-6P 793686-18-7P 793686-19-8P 793686-20-1P 793686-21-2P**
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for photoinitiators with low volatility for curing of inks and coatings)
RN 793686-10-9 USPATFULL
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-bromo-2-methyl-(9CI) (CA INDEX NAME)



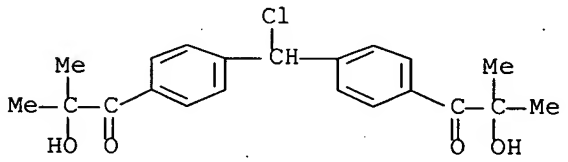
RN 793686-11-0 USPATFULL
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl-(9CI) (CA INDEX NAME)



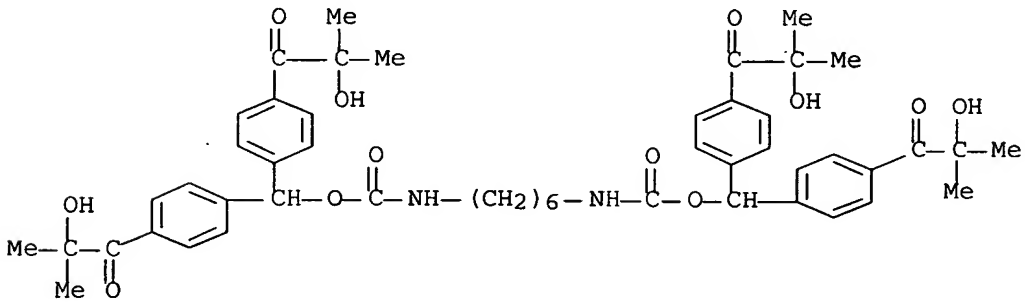
RN 793686-12-1 USPATFULL
CN 1-Propanone, 1,1'-[(methoxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



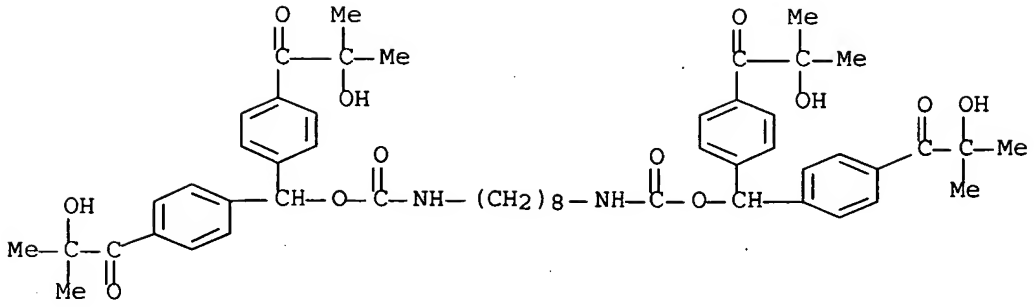
RN 793686-14-3 USPATFULL
CN 1-Propanone, 1,1'-[(chloromethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-15-4 USPATFULL
CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

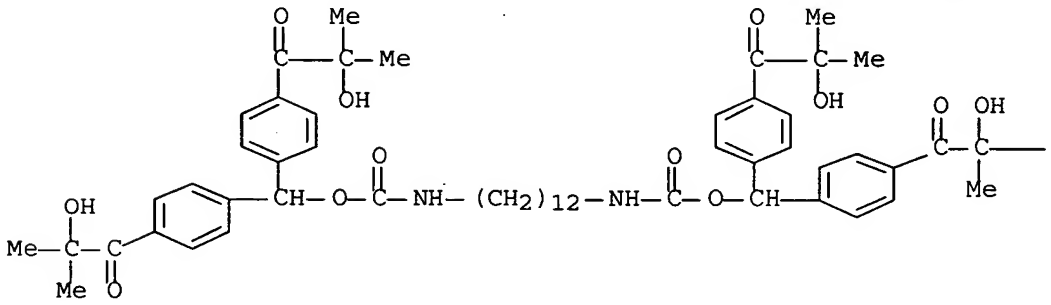


RN 793686-16-5 USPATFULL
CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-17-6 USPATFULL
CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

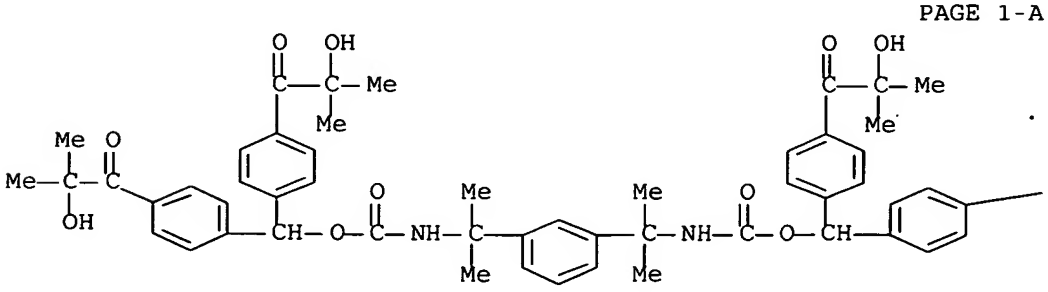


PAGE 1-B

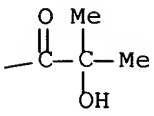
—Me

RN 793686-18-7 USPATFULL
CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

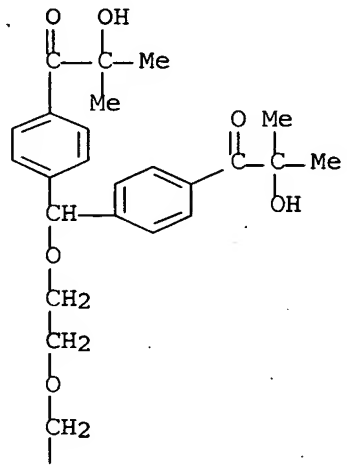


PAGE 1-B



RN 793686-19-8 USPATFULL
CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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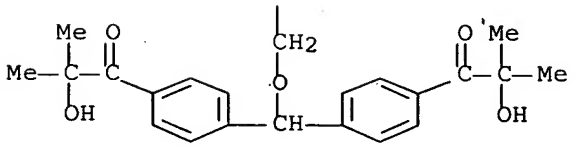
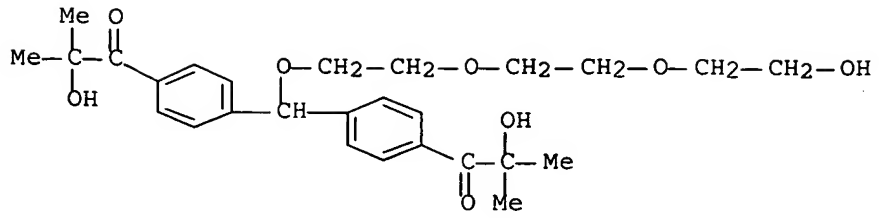
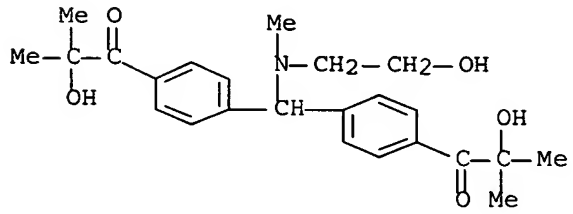


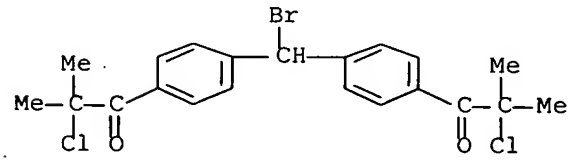
RN 793686-20-1 USPATFULL
CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



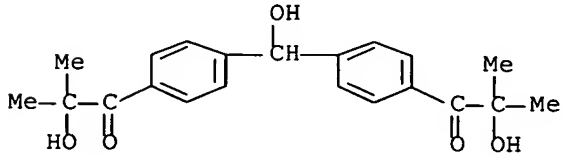
RN 793686-21-2 USPATFULL
CN 1-Propanone, 1,1'-[[[(2-hydroxyethyl)methylamino]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



IT **793686-09-6P**, Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane **793686-13-2P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for photoinitiators with low volatility for curing of inks and coatings)
RN 793686-09-6 USPATFULL
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-13-2 USPATFULL
CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

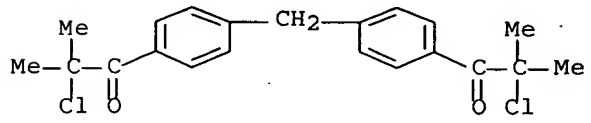


IT **524944-71-6P**, Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane

(precursor; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for photoinitiators with low volatility for curing of inks and coatings)

RN 524944-71-6 USPATFULL

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



L36 ANSWER 2 OF 3 USPATFULL on STN

AN 2006:245716 USPATFULL Full-text

TI Radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator

IN Fuchs, Andre, Schlienhgen-Obereggenen, GERMANY, FEDERAL REPUBLIC OF
Villeneuve, Sebastien, Huningue, FRANCE
Richert, Michelle q, Illzach, FRANCE

PI US 2006209098 A1 20060921

AI US 2004-553068 A1 20040406 (10)
WO 2004-EP50450 20040406
20051012 PCT 371 date

PRAI EP 2003-405266 20030416
EP 2003-102322 20030728

DT Utility

FS APPLICATION

LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005, US

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1212

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

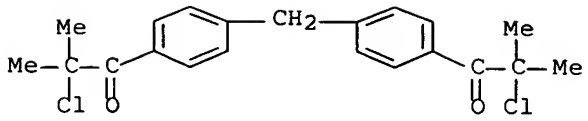
AB A process for preparing an inkjet printed matter, which comprises the steps of applying an ultraviolet curable inkjet ink composition comprising a photopolymerizable monomer, oligomer or prepolymer; a colorant and a compound of the formula (I) or (II) or (Ia) or (IIa) or mixtures thereof, and optionally a reactive diluent to a recording medium and curing the ink composition on the recording medium by irradiating with ultraviolet ray. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **524944-71-6P**
(radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator)

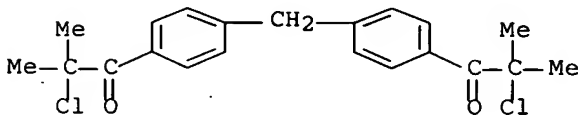
RN 524944-71-6 USPATFULL

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



L36 ANSWER 3 OF 3 USPATFULL on STN
AN 2005:5142 USPATFULL Full-text
TI Novel disfunctional photoinitiators
IN Fuchs, Andre, Schliengen-Obereggenen, GERMANY, FEDERAL REPUBLIC OF
Husler, Rinaldo, Basel, SWITZERLAND
Schregenberger, Christian, Olsberg, SWITZERLAND
Kunz, Martin, Efringen-Kirchen, GERMANY, FEDERAL REPUBLIC OF
PI US 2005004249 A1 20050106
US 7084183 B2 20060801
AI US 2004-494593 A1 20040505 (10)
WO 2002-EP12160 20021031
PRAI EP 2001-811020 20011108
DT Utility
FS APPLICATION
LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 2294
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to α-hydroxy ketones of formula I or IIa; or mixtures of compounds of formula I and II; or mixtures of compounds of formulae Ia and IIa ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **524944-71-6P**
(difunctional photoinitiators for curing polymers)
RN 524944-71-6 USPATFULL
CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)



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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 5 FEB 2008 HIGHEST RN 1001672-38-3
DICTIONARY FILE UPDATES: 5 FEB 2008 HIGHEST RN 1001672-38-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

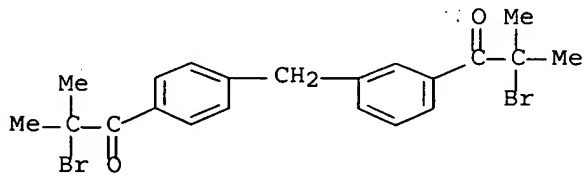
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> => d ide can tot

L38 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 780808-66-4 REGISTRY
ED Entered STN: 15 Nov 2004
CN 1-Propanone, 2-bromo-1-[3-[[4-(2-bromo-2-methyl-1-oxopropyl)phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)
MF C21 H22 Br2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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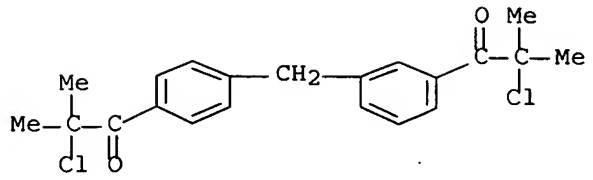
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:381170

L38 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 780808-62-0 REGISTRY
ED Entered STN: 15 Nov 2004
CN 1-Propanone, 2-chloro-1-[3-[[4-(2-chloro-2-methyl-1-oxopropyl)phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)
MF C21 H22 Cl2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

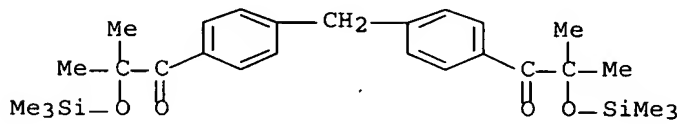


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:381170

L38 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-96-0 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-(methylene-di-4,1-phenylene)bis[2-methyl-2-[(trimethylsilyl)oxy]- (9CI) (CA INDEX NAME)
MF C27 H40 O4 Si2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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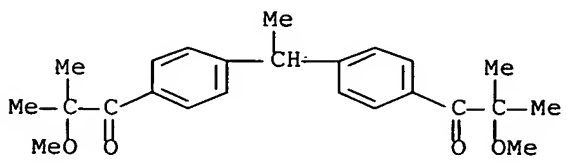
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-93-7 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-(ethylidenedi-4,1-phenylene)bis[2-methoxy-2-methyl- (9CI) (CA INDEX NAME)
MF C24 H30 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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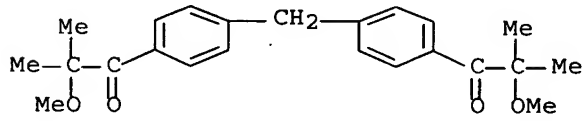
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-92-6 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-methoxy-2-methyl- (9CI) (CA INDEX NAME)
MF C23 H28 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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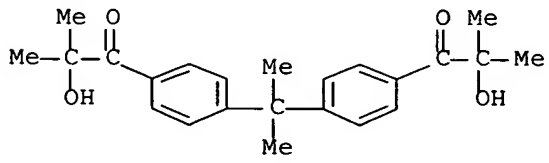
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-91-5 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-[(1-methylethylidene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
MF C23 H28 O4
SR CA.
LC STN Files: CA, CAPLUS, USPATFULL



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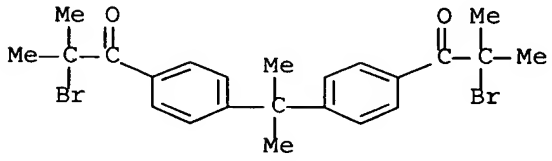
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-90-4 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-[(1-methylethylidene)di-4,1-phenylene]bis[2-bromo-2-methyl- (9CI) (CA INDEX NAME)
MF C23 H26 Br2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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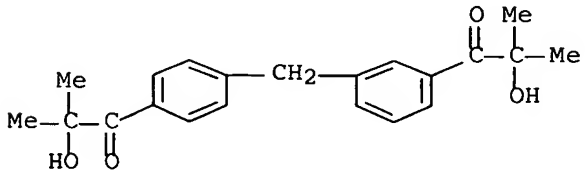
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 524944-65-8 REGISTRY
ED Entered STN: 04 Jun 2003
CN 1-Propanone, 2-hydroxy-1-[3-[[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)
MF C21 H24 O4
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



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6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 146:231055

REFERENCE 2: 146:229788

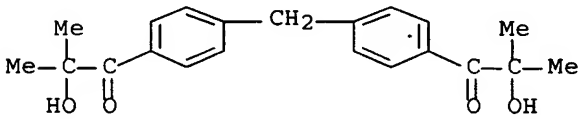
REFERENCE 3: 143:348728

REFERENCE 4: 142:482369

REFERENCE 5: 141:381170

REFERENCE 6: 138:386304

L38 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN **474510-57-1** REGISTRY
ED Entered STN: 26 Nov 2002
CN 1-Propanone, 1,1'-(methylene-di-4,1-phenylene)bis[2-hydroxy-2-methyl- (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methane
CN Irgacure 127
MF C21 H24 O4
SR CAS Client Services
LC STN Files: CA, CAPLUS, CHEMLIST, USPAT2, USPATFULL



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28 REFERENCES IN FILE CA (1907 TO DATE)
30 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 148:122003

REFERENCE 2: 148:66208

REFERENCE 3: 147:503914

REFERENCE 4: 147:449957

REFERENCE 5: 147:279426

REFERENCE 6: 147:129168

REFERENCE 7: 147:54224

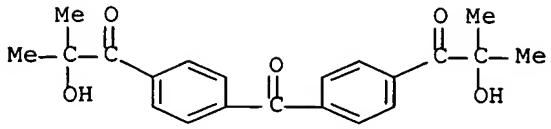
REFERENCE 8: 147:32894

REFERENCE 9: 147:32893

REFERENCE 10: 147:32884

L38 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 80067-87-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4,4'-Bis(α-hydroxyisobutyryl)benzophenone
MF C21 H22 O5

LC STN Files: CA, CAPLUS, USPATFULL



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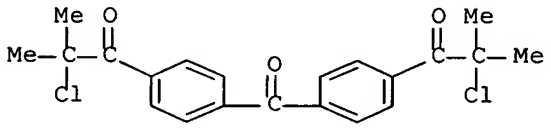
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:9425

REFERENCE 2: 96:52002

L38 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 80067-85-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI) (CA INDEX NAME)
MF C21 H20 Cl2 O3
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 96:52002

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(FILE 'HOME' ENTERED AT 12:33:13 ON 06 FEB 2008)
SET COST OFF

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E SOMMERLADE/AU
L2 11 S E6,E7
E HUSLER/AU
L3 5 S E17
E HUESLER/AU
L4 36 S E17,E18
E HEUSLER/AU

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L5            3 S E3
                E ILG/AU
L6           28 S E43-E46
                E FUCHS/AU
L7          316 S E3-E9,E47
                E BOULMAAZ/AU
L8           25 S E4,E5
                E SOUAD/AU
                E BIRBAUM/AU
L9           50 S E8,E9
                E CIBA/CO
                E CIBA S/CO
L10        2575 S E19-E144/CO,PA,CS
                E E63+ALL
                E E1+ALL
L11        2731 S E2+RT OR E2-E22/PA,CS
L12       29974 S CIBA?/CO,PA,CS
L13           1 S L1 AND L2-L12
                SEL RN

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L18           0 S L17 CSS SAM
L19           0 S L17 SAM
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L21           0 S L20
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L23           0 S L22
L24             STR L22
L25           0 S L24 CSS SAM
L26          12 S L15 AND (C21H24O2 OR C17H18O OR C41H51N3O2 OR C27H39N3O2 OR C
L27           2 S L26 AND C21H21BR3O2
L28           1 S 793686-10-9
L29          14 S L15 NOT L26
L30          15 S L16,L28,L29
L31          25 S L24 CSS FUL
                SAV TEMP L31 TREIDL552/A
L32          10 S L31 NOT L30
L33          14 S L30 NOT 474510-57-1

     FILE 'HCAPLUS' ENTERED AT 12:51:44 ON 06 FEB 2008
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     FILE 'USPATFULL' ENTERED AT 12:52:02 ON 06 FEB 2008
L36           3 S L33

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     FILE 'HCAPLUS' ENTERED AT 12:52:30 ON 06 FEB 2008

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L37           1 S L30 NOT  L33
L38          11 S L32,L37
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STRUCTURE FILE UPDATES:   20 FEB 2008  HIGHEST RN 1004854-20-9
DICTIONARY FILE UPDATES:  20 FEB 2008  HIGHEST RN 1004854-20-9

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FILE COVERS 1907 - 21 Feb 2008  VOL 148 ISS 8
FILE LAST UPDATED: 20 Feb 2008  (20080220/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L42             STR
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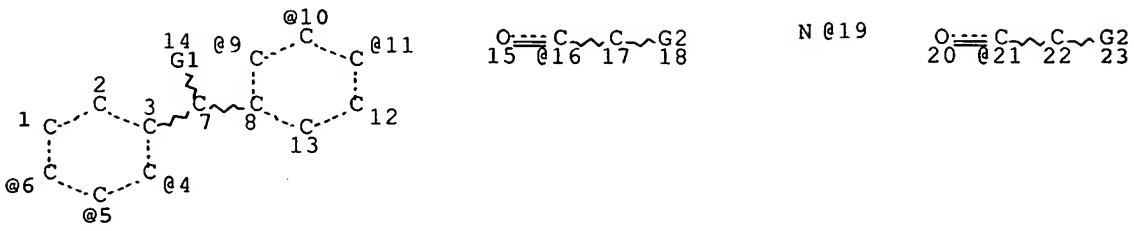

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
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L46 37 SEA FILE=HCAPLUS ABB=ON L44
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L49 2 SEA FILE=HCAPLUS ABB=ON L46 AND ?INITIAT?
L51 2 SEA FILE=HCAPLUS ABB=ON L48 OR L49

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L51 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:996227 HCAPLUS Full-text
DOCUMENT NUMBER: 141:425384
TITLE: Aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators**
INVENTOR(S): Sommerlade, Reinhard H.; Huesler, Rinaldo; Ilg, Stephan; Fuchs, Andre; Boulmaaz, Souad; Birbaum, Jean-Luc
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099262	A1	20041118	WO 2004-EP50689	20040504

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

AU 2004236436	A1	20041118	AU 2004-236436		20040504
CA 2522014	A1	20041118	CA 2004-2522014		20040504
EP 1620475	A1	20060201	EP 2004-741507		20040504
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
BR 2004010118	A	20060523	BR 2004-10118		20040504
CN 1784429	A	20060607	CN 2004-80011984		20040504
JP 2006525399	T	20061109	JP 2006-505585		20040504
US 2006270748	A1	20061130	US 2005-552952		20051013
MX 2005PA11543	A	20051214	MX 2005-PA11543		20051027
IN 2005CN03288	A	20070928	IN 2005-CN3288		20051206
PRIORITY APPLN. INFO.:			EP 2003-405318	A	20030506
			WO 2004-EP50689	W	20040504

OTHER SOURCE(S): MARPAT 141:425384

AB Ketones with lower volatility than Irgacure 2959, useful for curing of coatings and inks, have 1-10 methylenebis(carbonylphenyl) groups with hydroxy, alkoxy, or amino groups substituted on a tertiary C alpha to the carbonyl groups and a heteroatom such as O, Cl, Br, N, and S bonded to the methylene group, such as bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methano l (I). I was manufactured by Friedel-Crafts reaction of diphenylmethane with isobutyroyl chloride, bromination of the resulting intermediate with Br in CCl4, and hydrolysis of the resulting bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane in water-dioxane mixture in presence of Bu4NBr and NaOH.

IC ICM C08F002-50
ICS C07C049-83

CC 42-3 (Coatings, Inks, and Related Products)
Section cross-reference(s): 25

ST arom alpha hydroxy ketone **photoinitiator** coating ink; bishydroxymethyl propionylphenylmethanol **photoinitiator** coating ink; amino ketone arom alpha **photoinitiator** coating ink; alkoxy ketone arom alpha **photoinitiator** coating ink

IT Coating materials
(abrasion-resistant; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Polysiloxanes, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(acrylates, Ebecryl 1360, coating crosslinker; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Epoxy resins, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, UV-cured ink and coating binder; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Ketones, uses
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)
(amino; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Laminated plastics, miscellaneous
Reinforced plastics
RL: MSC (Miscellaneous)
(aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of plastic composites)

IT Ketones, uses
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(aromatic, α-alkoxy; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Acrylic polymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(epoxy, UV-cured ink and coating binder; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Coating materials
(gel coats; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Inks
(jet-printing; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Amines, uses
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(keto; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Crosslinking catalysts
(photochem.; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Coating materials
Inks
(photocurable; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Coating materials
(powder; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Food packaging materials
(substrates; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Glass fibers, miscellaneous
RL: MSC (Miscellaneous)
(substrates; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Ketones, uses
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)
(α-hydroxy; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 51728-26-8, Ethoxylated pentaerythritol tetraacrylate
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(Ebecryl 40, coating crosslinker; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 97949-13-8, Ebecryl 605
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(Ebecryl 605, coating binder; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 52408-84-1, OTA 480
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(OTA 480, coating crosslinker; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 649757-97-1P, Ebecryl 220-Ebecryl 645-1,6-hexanediol diacrylate-IRR 440-OTA 480 copolymer 794567-25-2P, Viajet 100-Viajet 400 copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(UV-cured ink binder; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 793686-10-9P, Bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane **793686-11-0P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane **793686-12-1P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methoxymethane **793686-14-3P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane **793686-15-4P 793686-16-5P 793686-17-6P 793686-18-7P 793686-19-8P 793686-20-1P 793686-21-2P 793686-22-3P** 793686-25-6P, 2-Bromo-1-[4-[bromo-[4-(2-bromobutyryl)phenyl]methyl]phenyl]butan-1-one **793686-27-8P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 793686-09-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane **793686-13-2P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol **793686-26-7P**, 2-Dimethylamino-1-[4-[(dimethylamino)[4-(2-dimethylaminobutyryl)phenyl]methyl]phenyl]butan-1-one
RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 793686-23-4P, 1-[4-(4-Cyclohexanecarbonylbenzyl)phenyl]-2-methylpropan-1-one

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 135991-03-6, Ebecryl 7100
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(coating binder; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 42978-66-5, Tripropylene glycol diacrylate
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(coating crosslinker; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 20176-49-2P, 1-[4-(4-Butyrylbenzyl)phenyl]butan-1-one 80067-83-0P, Bis[4-(2-methylpropionyl)phenyl]methane 524944-71-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane 793686-24-5P, 2-Bromo-1-[4-[bromo-[4-(1-bromocyclohexancarbonyl)phenyl]methyl]phenyl]-2-methylpropan-1-one
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(precursor; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

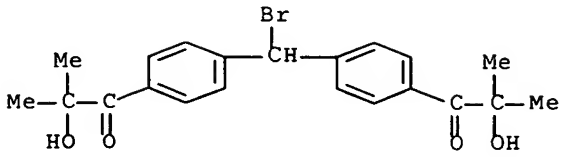
IT 79-30-1, Isobutyroyl chloride 100-39-0, Benzyl bromide 101-81-5, Diphenylmethane 109-83-1, 2-Methylaminoethanol 111-46-6, Diethylene glycol, reactions 112-27-6, Triethylene glycol 141-75-3, Butyryl chloride 822-06-0, 1,6-Hexamethylene diisocyanate 2778-42-9, 1,3-Bis(1-isocyanato-1-methylethyl)benzene 10124-86-4, 1,8-Diisocyanatooctane 13879-35-1, 1,12-Diisocyanatododecane 80067-81-8, 1-(4-Benzylphenyl)-2-methylpropan-1-one 474510-57-1, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methane
RL: RCT (Reactant); RACT (Reactant or reagent)

(precursor; aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT **793686-11-0P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane **793686-12-1P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methoxymethane **793686-14-3P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane **793686-15-4P** **793686-16-5P** **793686-17-6P** **793686-18-7P** **793686-19-8P** **793686-20-1P** **793686-21-2P** **793686-22-3P** **793686-27-8P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

RN 793686-11-0 HCAPLUS
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



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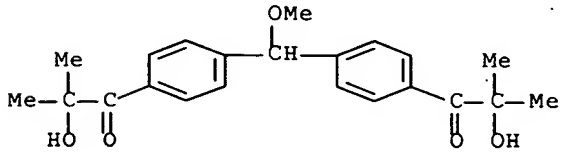

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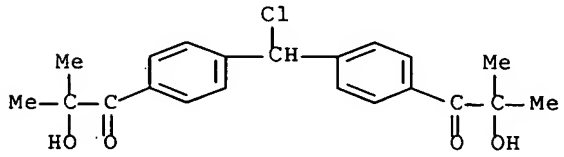

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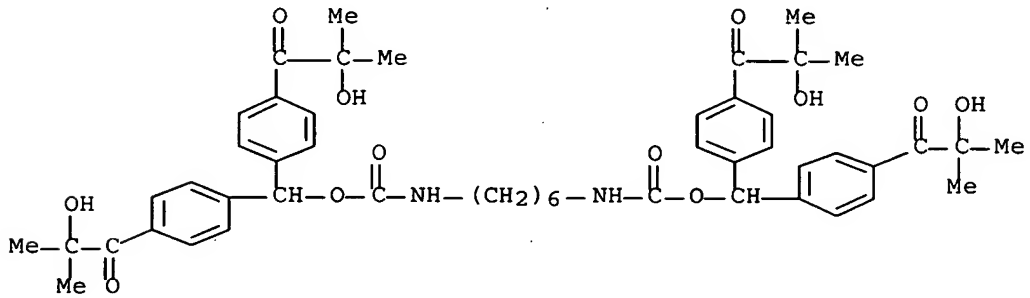

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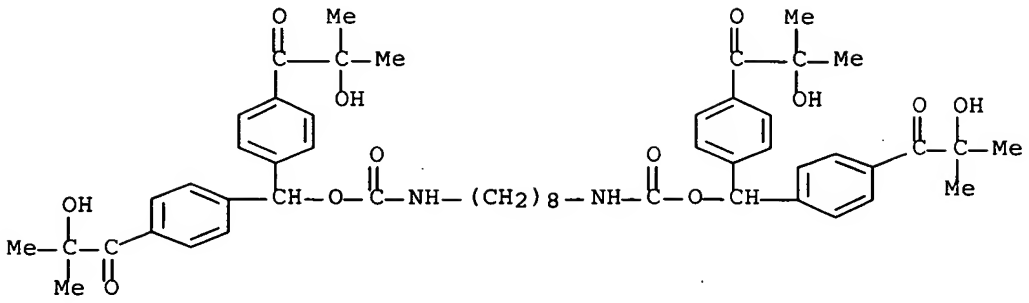

RN 793686-17-6 HCAPLUS
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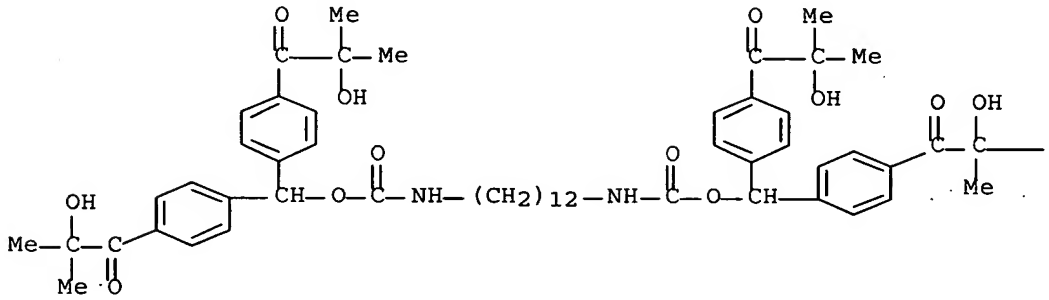
PAGE 1-A



PAGE 1-B

—Me

RN 793686-18-7 HCAPLUS
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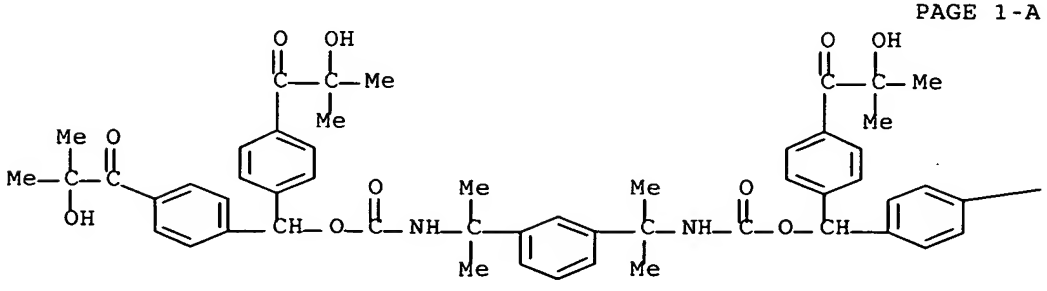
PAGE 1-A



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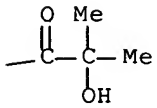
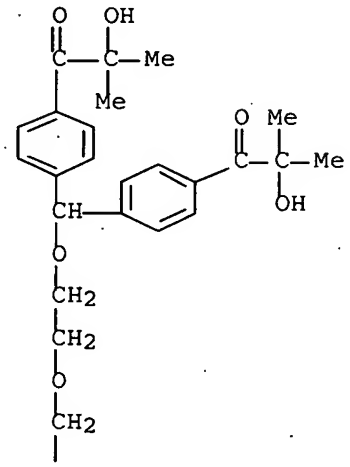
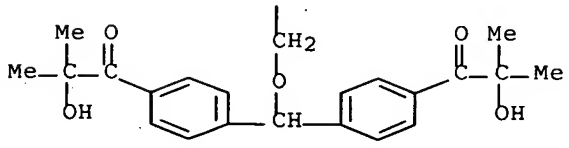


RN 793686-19-8 HCAPLUS
CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

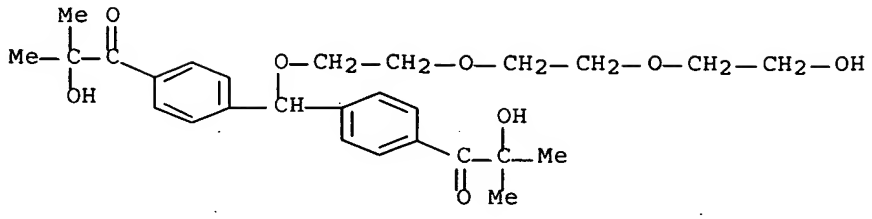
PAGE 1-A



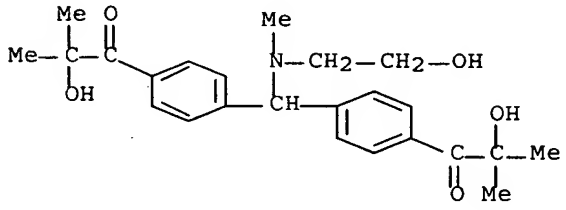
PAGE 2-A



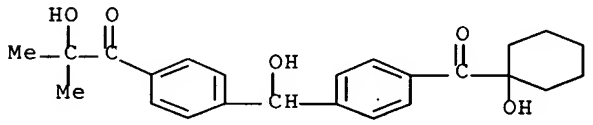
RN 793686-20-1 HCAPLUS
CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



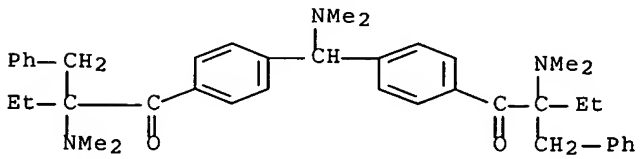
RN 793686-21-2 HCAPLUS
CN 1-Propanone, 1,1'-[[[(2-hydroxyethyl)methylamino]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-22-3 HCAPLUS
CN 1-Propanone, 2-hydroxy-1-[4-[hydroxy[4-[(1-hydroxycyclohexyl)carbonyl]phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)

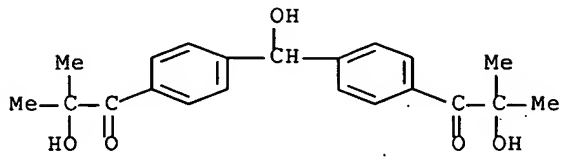


RN 793686-27-8 HCAPLUS
CN 1-Butanone, 1,1'-[[(dimethylamino)methylene]di-4,1-phenylene]bis[2-(dimethylamino)-2-(phenylmethyl)- (9CI) (CA INDEX NAME)

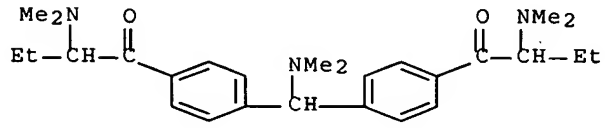


IT **793686-13-2P**, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
793686-26-7P, 2-Dimethylamino-1-[4-[(dimethylamino)[4-(2-dimethylaminobutyryl)phenyl]methyl]phenyl]butan-1-one
RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(aromatic α-hydroxy ketones, α-alkoxy ketones, and α-amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

RN 793686-13-2 HCAPLUS
CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-26-7 HCAPLUS
CN 1-Butanone, 1,1'-[[(dimethylamino)methylene]di-4,1-phenylene]bis[2-(dimethylamino)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1982:52002 HCAPLUS Full-text
DOCUMENT NUMBER: 96:52002
ORIGINAL REFERENCE NO.: 96:8557a,8560a
TITLE: Aromatic-aliphatic ketones, their use as **photoinitiators** and photopolymerizable systems containing these ketones
INVENTOR(S): Eichler, Juergen; Herz, Claus; Neisius, Karl Heinz; Wehner, Gregor
PATENT ASSIGNEE(S): Merck Patent G.m.b.H. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 69 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3008411	A1	19810910	DE 1980-3008411	19800305
US 4374984	A	19830222	US 1981-240439	19810304
CH 648016	A5	19850228	CH 1981-1448	19810304
JP 56139478	A	19811030	JP 1981-30632	19810305
US 4496447	A	19850129	US 1982-451673	19821221
PRIORITY APPLN. INFO.:			DE 1980-3008411 A	19800305
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OTHER SOURCE(S): MARPAT 96:52002
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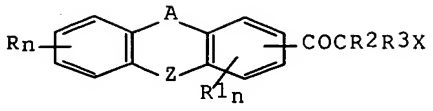

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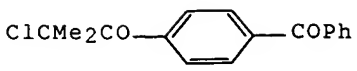


II

AB A very wide range of araliph. and condensed araliph. ketones of overall structure I [A = CO or COCO, Z = (H, H), bond, CH2, etc. X = alkoxy, amino, etc.] was prepared and/or claimed. Thus, PhCH2Ph was acylated with Me2CHCOCl, chlorinated, and oxidized with Na2Cr2O7 to give 4-ClCMe2COC6H4Ph, which was, e.g., hydrolyzed with aqueous NaOH to give II. The compds. were tested as polymerization **initiators.**

IC C07C069-67; C07D335-16; C07F007-18; C08F002-50

CC 25-15 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

ST ketone araliph condensed araliph; thioxanthone alkanoyl; anthraquinone alkanoyl; fluorenone alkanoyl; polymn **initiator** ketone

IT Ketones, preparation
RL: PREP (Preparation)
(araliph., araliph. and condensed)

IT Polymerization catalysts
(**initiators**, araliph. and condensed araliph. ketones as)

IT 101-81-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of)

IT 79-30-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of diphenylmethane with)

IT 32476-02-1
RL: PROC (Process)
(partial acetalization of)

IT 80067-81-8P 80067-84-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)

IT 782-92-3P 80067-82-9P 80067-83-0P 80067-85-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)

IT 53689-84-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and partial acetalization of)

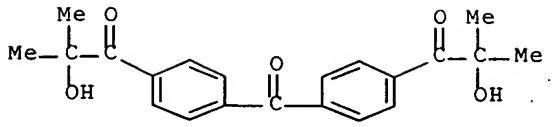
IT 80067-85-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and substitution reactions of)

IT 80067-86-3P **80067-87-4P** 80067-88-5P 80067-89-6P
80067-90-9P **80067-91-0P** 80067-92-1P 80067-93-2P
80067-94-3P 80067-95-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

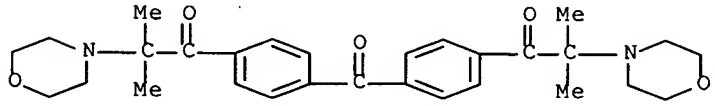
IT **80067-87-4P 80067-91-0P 80067-94-3P**
80067-95-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 80067-87-4 HCAPLUS

CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 80067-91-0 HCAPLUS
CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-methyl-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 80067-94-3 HCAPLUS
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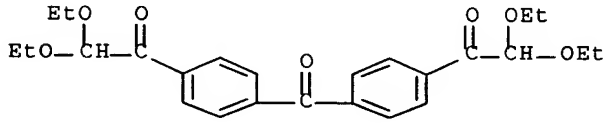
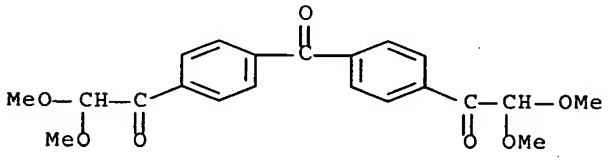


RN 80067-95-4 HCAPLUS
CN Ethanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2,2-dimethoxy- (9CI) (CA INDEX NAME)



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DICTIONARY FILE UPDATES:  20 FEB 2008  HIGHEST RN 1004854-20-9

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
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FILE COVERS 1907 - 21 Feb 2008  VOL 148 ISS 8
FILE LAST UPDATED: 20 Feb 2008  (20080220/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L42             STR
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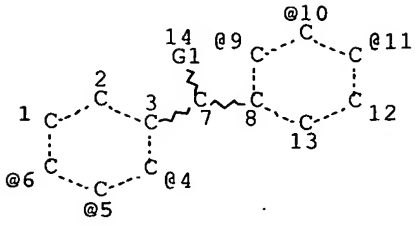

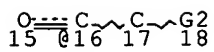

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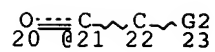

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NSPEC IS RC AT 22
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
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L46 37 SEA FILE=HCAPLUS ABB=ON L44
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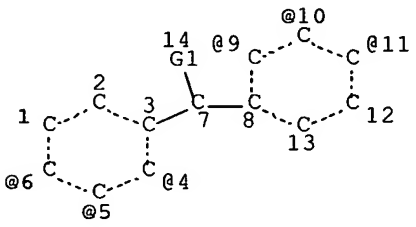

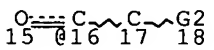

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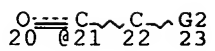

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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
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L60 2 SEA FILE=HCAPLUS ABB=ON L59
L62 1 SEA FILE=HCAPLUS ABB=ON L60 NOT L51

=> d l62 ibib abs ind hitstr

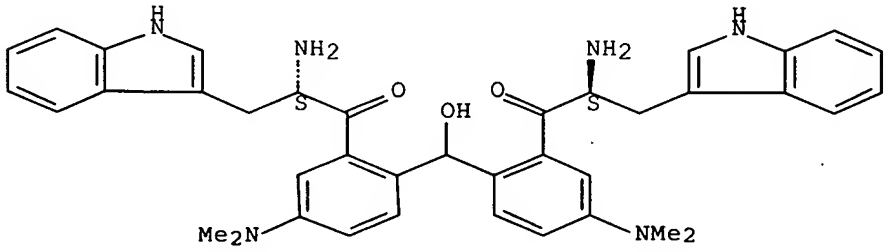
L62 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:101527 HCAPLUS Full-text
DOCUMENT NUMBER: 130:293477
TITLE: Spectrophotometric method for determination of sulfoxides
AUTHOR(S): Kosyan, A. M.
CORPORATE SOURCE: Taras Shevchenko Kyiv University, Kiev, Ukraine
SOURCE: Ukrainskii Biokhimicheskii Zhurnal (1998), 70(1), 125-130
CODEN: UBZHD4; ISSN: 0201-8470
PUBLISHER: Institut Biokhimii im. A. V. Palladina NAN Ukrainy
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian

AB Easy and exact method for determination of sulfoxides based on the property of these substances to react with the product of tryptophan condensation with p-dimethylaminobenzaldehyde is proposed. An oxidizer-deoxidizer reaction results in formation of bis-2-tryptophanyl-4-dimethylaminophenylcarbinol - a blue-violet dye with absorption maximum at 575 nm. Sensitivity of the method is 5 μmol/g, relative error at three detns. is ± 3.3%. The method can be used for studying features of sulfoxide biosynthesis and accumulation in garlic tissues and for estimation of quality of bulbs as raw material for the food and pharmaceutical industries.

CC 9-5 (Biochemical Methods)
Section cross-reference(s): 17, 64
ST sulfoxide spectrophotometry drug garlic
IT Garlic (Allium sativum)
Pharmaceutical analysis
Spectrophotometry
(spectrophotometric method for determination of sulfoxides)
IT Sulfoxides
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(spectrophotometric method for determination of sulfoxides)
IT 73-22-3, Tryptophan, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with p-dimethylaminobenzaldehyde; Spectrophotometric method for determination of sulfoxides)
IT 100-10-7, p-Dimethylaminobenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with tryptophan; spectrophotometric method for determination of
sulfoxides)
IT 62697-73-8P, Methionine sulfoxide
RL: ANT (Analyte); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation)
(spectrophotometric method for determination of sulfoxides)
IT **223261-43-6P**
RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)
(spectrophotometric method for determination of sulfoxides)
IT **223261-43-6P**
RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)

(spectrophotometric method for determination of sulfoxides)
RN 223261-43-6 HCAPLUS
CN 1-Propanone, 1,1'-[(hydroxymethylene)bis[5-(dimethylamino)-2,1-phenylene]]bis[2-amino-3-(1H-indol-3-yl)-, (2S,2'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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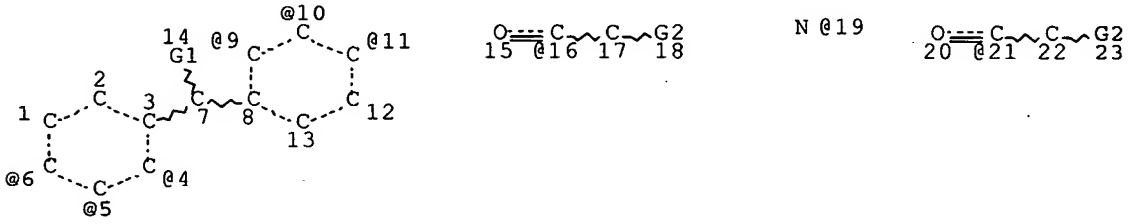
L42 STR



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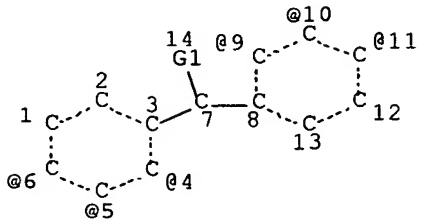
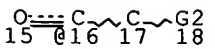
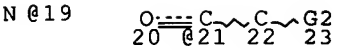
VPA 21-4/5/6 U
NODE ATTRIBUTES:
NSPEC IS RC AT 17
NSPEC IS RC AT 19
NSPEC IS RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L44 68 SEA FILE=REGISTRY SSS FUL L42
L46 37 SEA FILE=HCAPLUS ABB=ON L44
L48 2 SEA FILE=HCAPLUS ABB=ON L46 AND PHOTOINIT?
L49 2 SEA FILE=HCAPLUS ABB=ON L46 AND ?INITIAT?
L51 2 SEA FILE=HCAPLUS ABB=ON L48 OR L49
L55 35 SEA FILE=HCAPLUS ABB=ON L46 NOT L51
L56 STR







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VPA 21-4/5/6 U
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NSPEC IS RC AT 19
NSPEC IS RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L59 15 SEA FILE=REGISTRY SUB=L44 SSS FUL L56
L60 2 SEA FILE=HCAPLUS ABB=ON L59
L62 1 SEA FILE=HCAPLUS ABB=ON L60 NOT L51
L63 34 SEA FILE=HCAPLUS ABB=ON L55 NOT L62

=> d l63 ibib abs ind hitstr 1-34

L63 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:40293 HCAPLUS Full-text
DOCUMENT NUMBER: 146:287727
TITLE: Library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors
AUTHOR(S): Feng, Xizhi; Jiang, Xi
CORPORATE SOURCE: Division of Infectious Diseases, Department of Pediatrics, Cincinnati Children's Hospital Medical Center, University of Cincinnati College of Medicine, Cincinnati, OH, USA
SOURCE: Antimicrobial Agents and Chemotherapy (2007), 51(1), 324-331
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Human noroviruses (NVs) are a common cause of nonbacterial gastroenteritis. The disease is difficult to control due to its widespread nature and the lack of antivirals or vaccines against NVs. The recent identification of human histo-blood group antigens (HBGAs) as NV receptors opens a new way for the discovery and design of antivirals against NVs. A saliva-based enzyme immune assay (EIA) was used to screen a synthetic-compound library for inhibition of the binding of norovirus-like particles to HBGA receptors. Among 5,000 compds. tested in the first round of screening, 153 compds. exhibited >50% inhibition of the binding of VA387 (an NV that binds to A, B, and H epitopes)

to the A antigen in saliva at .apprx.50 μg/mL, and 14 of the 153 compds. revealed strong inhibition, with a 50% effective concentration of <15 μM. Ten and 11 of the 14 compds. also revealed inhibition of the binding of VA387 to the B and H antigens, resp. Seven and 6 of the 14 compds. also blocked the binding of the prototype Norwalk virus (A and H binder) to the A and H antigens, resp. One compound significantly inhibited the binding of MOH (A and B binder) to the A and B antigens, but no compound revealed any inhibitory effect on the binding of a Lewis binding strain (VA207) to the Lewis antigens. The EIA is a high-throughput method for large-scale library screening for antivirals against NVs. Studies to further characterize the lead compds. and to screen addnl. compds. for other NVs are ongoing in our laboratory

CC 1-5 (Pharmacology)
Section cross-reference(s): 10, 15

ST antiviral screening blood group substance binding caspid norovirus gastroenteritis

IT Blood-group substances
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(A; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Blood-group substances
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(B; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Blood-group substances
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(H; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Proteins
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(capsid; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT High throughput screening
(drug; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Drug screening
(high throughput; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Antiviral agents
Human
Norovirus
Protein-protein interaction
Saliva
Self-association
Viral capsid
(library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Infection
(viral, viral gastroenteritis; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Gastroenteritis
(viral; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

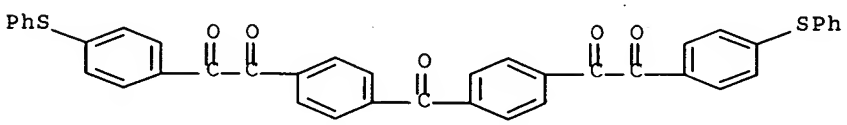
IT 93261-45-1 119004-78-3 169330-02-3 **182196-74-3** 198973-47-6
303205-03-0 328284-34-0 328286-75-5 635699-97-7 697785-71-0
927813-03-4 927813-04-5 927813-05-6 927813-06-7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT **182196-74-3**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

RN 182196-74-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]- (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1110858 HCAPLUS Full-text

DOCUMENT NUMBER: 147:166715

TITLE: New thermosetting poly(phenylquinoxalines)

AUTHOR(S): Belomoina, N. M.; Rusanov, A. L.; Askadskii, A. A.

CORPORATE SOURCE: Inst. Elementoorg. Soedininii im. A. N. Nesmeyanova, RAN, Russia

SOURCE: Plasticheskie Massy (2006), (8), 33-36
CODEN: PLMSAI; ISSN: 0554-2901

PUBLISHER: ZAO NP "Plasticheskie Massy"

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A branching hexaketone monomer was synthesized from mellitic acid and 4-aminobenzil and its ability to react with triple molar excess of a diamine was demonstrated in a model reaction with o-phenylenediamine. Seven poly(phenylquinoxalines) were prepared using branching monomer in combination with various tetraketones and tetraamines. The prepared polymers were characterized by softening temperature, tensile strength, and elasticity.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST polyphenylquinoxaline synthesis thermal mech property

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketone-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))

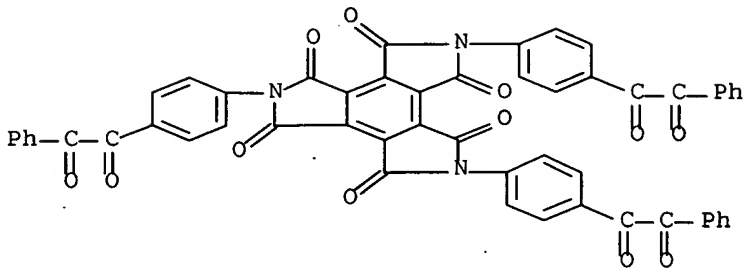
IT Polyimides, preparation
Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyquinoxaline-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyimide-polyquinoxaline-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-polyquinoxaline-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT Polyethers, preparation
Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polysulfone-; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT Elongation, mechanical
Tensile strength
Thermal stability
(synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT 914612-43-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(model compound; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT 95-54-5, o-Phenylenediamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(model reaction; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT 517-60-2, Mellitic acid 31029-96-6, 4-Aminobenzil
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer synthesis; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT 75043-15-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT 944042-80-2P 944042-81-3P 944042-82-4P **944042-83-5P**
944042-84-6P 944042-85-7P 944042-86-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
IT **944042-83-5P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of branched thermosetting poly(phenylquinoxalines))
RN 944042-83-5 HCAPLUS
CN 1H-Benzo[1,2-c:3,4-c':5,6-c'']tripyrrole-1,3,4,6,7,9(2H,5H,8H)-hexone, 2,5,8-tris[4-(2-oxo-2-phenylacetyl)phenyl]-, polymer with 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenylethanedione] and 4,4'-oxybis[1,2-benzenediamine] (CA INDEX NAME)

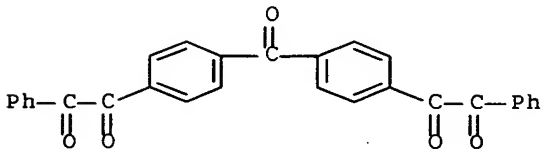
CM 1

CRN 75043-15-1
CMF C54 H27 N3 O12



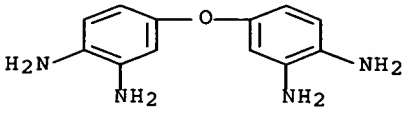
CM 2

CRN 31224-78-9
CMF C29 H18 O5



CM 3

CRN 2676-59-7
CMF C12 H14 N4 O



L63 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:214451 HCAPLUS Full-text
DOCUMENT NUMBER: 146:101135
TITLE: Preparation and study of new poly(phenylquinoxaline-ether-imide)s
AUTHOR(S): Lungu, Ramona; Hamciuc, Elena; Bruma, Maria; Szesztay, Marta; Muller, Peter; Belomoina, Nataliya M.
CORPORATE SOURCE: Institute of Macromolecular Chemistry, Iasi, 700487, Rom.
SOURCE: Revue Roumaine de Chimie (2005), 50(7-8), 579-587, 2 plates
CODEN: RRCHAX; ISSN: 0035-3930
PUBLISHER: Editura Academiei Romane
DOCUMENT TYPE: Journal
LANGUAGE: English
AB New aromatic poly(phenylquinoxaline-ether-imide)s were synthesized by solution polycondensation reaction of aromatic diamines containing preformed

phenylquinoxaline groups with two bis(ether-anhydride)s, namely 1,1-bis[p-(3,4-dicarboxyphenoxy)phenyl]cyclohexane dianhydride or 1,1-bis[p-(3,4-dicarboxyphenoxy)phenyl]fluorene dianhydride. All polymers were easily soluble in organic solvents, such as N-methylpyrrolidinone and dimethylacetamide, and even in less polar solvents like pyridine, THF or chloroform, and gave flexible films by casting of such solns. They showed high thermal stability, with an initial decomposition temperature above 300° and a glass transition temperature in the range of 220-271°. The polymer films exhibited good mech. properties with tensile strength in the range of 38.5-78.2 MPa, elastic modulus in the range of 2.8-3.1 GPa and elongation to break in the range of 1.5-4.2 %. The polymers mol. weight was found to be in the range of 12000-23000 g/mol and number-average mol. wts. in the range of 6000-11000 g/mol.

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36

ST arom diamine bisether anhydride condensation imidization polyphenylquinoxalineetherimide prepn property

IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(cardo; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-polyketone-, aromatic; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-polyquinoxaline-, aromatic; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketone-polyquinoxaline-, aromatic; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyphenylquinoxaline-; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyimide-polyketone-polyquinoxaline-, aromatic; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyimide-polyphenylquinoxaline-; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Cardo polymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyimides; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, polyether-polyimide-; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Elongation at break

Glass transition temperature
Melting point
Polymerization
Solubility
Tensile strength
Thermal properties
Young's modulus
(preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT 843-55-0, 1,1-Bis(4-hydroxyphenyl)cyclohexane 3236-71-3, 9,9-Bis(4-hydroxyphenyl)fluorene 31643-49-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(in bis(ether-anhydride) preparation; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT 6264-66-0, 3,4,4'-Triamino-diphenylether 21454-19-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(in diaminophenylquinoxalines preparation; preparation and properties of new poly(phenylquinoxaline-ether-imides))

IT 86386-79-0P 86386-81-4P 247939-94-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepared diaminophenylquinoxaline; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

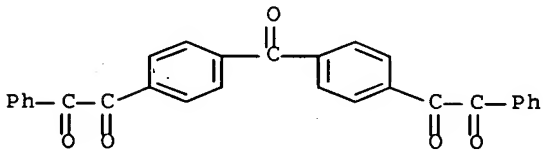
IT **31224-78-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepared diaminophenylquinoxaline; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT 59507-08-3P 125567-05-7P 917977-84-5P 917977-85-6P 917977-86-7P 917977-87-8P 917977-88-9P 917977-89-0P 917977-90-3P 917977-91-4P 917977-92-5P 917977-93-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT 3363-97-1, 1,4-Bis(phenylglyoxalyl)benzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and properties of new poly(phenylquinoxaline-ether-imides))

IT **31224-78-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepared diaminophenylquinoxaline; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:999636 HCAPLUS Full-text
DOCUMENT NUMBER: 143:440853
TITLE: Synthesis and polymer analogous transformations of new functionalized polyheteroarylenes
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.; Likhatchev, D. Yu.

CORPORATE SOURCE: A. N. Nesmeyanov Institute for Organoelement Compounds, Russian Academy of Sciences, Moscow, 119991, Russia
SOURCE: High Performance Polymers (2005), 17(3), 449-465
CODEN: HPPOEX; ISSN: 0954-0083
PUBLISHER: Sage Publications
DOCUMENT TYPE: Journal
LANGUAGE: English

AB New poly[(4-fluorophenyl)quinoxaline]s were prepared by polycyclocondensation of bis(o-phenylenediamines) with bis(a-diketone)s - bis(4-fluorophenylglyoxalyl)arylenes. The effect of fluorine atoms in poly(phenylquinoxaline)s on the solubility, thermal characteristics and other properties of the resulting polymers was studied. As the quinoxaline rings act as the activators of fluorine atoms in the reactions of aromatic nucleophilic substitution, poly[(4-fluorophenyl)quinoxaline]s were transformed into poly(phenylquinoxalines) containing aroxy, p-carboxyphenoxy and aroxysulfonic acids groups.

CC 35-5 (Chemistry of Synthetic High Polymers)
ST functionalized polyfluorophenylquinoxaline analogous prepn transformation

IT Substitution reaction, nucleophilic
(aromatic; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polymerization
(cyclopolymn.; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fluorine-containing, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyether-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyether-polyketone-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyketones
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyether-polyquinoxaline-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polyketone-, fluorine-containing, functionalization of; preparation of novel
functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyethers, preparation
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyketone-polyquinoxaline-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Fluoropolymers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, fluorine-containing; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyketones
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyquinoxaline-, fluorine-containing, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Fluoropolymers, preparation
Polyethers, preparation
Polysulfones, preparation
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyquinoxaline-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polysulfone-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Elongation, mechanical
Solubility
Tensile strength
Thermal stability
Viscosity
(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Softening (mechanical)
(softening point; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT **72383-21-2P 72412-83-0P 188577-22-2P**
188577-31-3P 188577-36-8P 188652-39-3P 188652-40-6P

188652-41-7P **201336-92-7P 201336-93-8P**
201336-94-9P 201336-95-0P 201336-96-1P 201336-97-2P
201336-98-3P 201336-99-4P 201337-00-0P 201337-01-1P 201337-02-2P
201337-03-3P 201490-67-7P 201490-68-8P 201490-69-9P 201490-70-2P
201490-71-3P 201490-72-4P 201490-73-5P 201490-74-6P 201490-75-7P
201490-76-8P 201490-77-9P 201490-78-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 99-96-7DP, p-Hydroxybenzoic acid, reaction products with polyfluorophenylquinoxalines 108-39-4DP, 3-Methylphenol, reaction products with polyfluorophenylquinoxalines 108-95-2DP, Phenol, reaction products with polyfluorophenylquinoxalines 825-90-1DP, Sodium p-hydroxybenzenesulfonate, reaction products with polyfluorophenylquinoxalines 20349-39-7DP, reaction products with polyfluorophenylquinoxalines **72383-21-2DP**, functionalized 72412-83-0DP, functionalized **188577-22-2DP**, functionalized **188577-31-3DP**, functionalized **188577-36-8DP**, functionalized 188652-39-3DP, functionalized 188652-40-6DP, functionalized 188652-41-7DP, functionalized **201336-92-7DP**, functionalized **201336-93-8DP**, functionalized **201336-94-9DP**, functionalized **201336-95-0DP**, functionalized 201336-97-2DP, functionalized 201336-98-3DP, functionalized 201336-99-4DP, functionalized 201337-00-0DP, functionalized 201337-01-1DP, functionalized 201337-02-2DP, functionalized 201337-03-3DP, functionalized 201490-67-7DP, functionalized 201490-68-8DP, functionalized 201490-69-9DP, functionalized 201490-70-2DP, functionalized 201490-71-3DP, functionalized 201490-72-4DP, functionalized 201490-73-5DP, functionalized 201490-74-6DP, functionalized 201490-75-7DP, functionalized 201490-76-8DP, functionalized 201490-77-9DP, functionalized 201490-78-0DP, functionalized
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 95-54-5, o-Phenylenediamine, reactions 108-86-1, Bromobenzene, reactions 766-98-3, 4-Fluorophenylacetylene 14173-05-8, Triiodoacrolein
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 2789-89-1P, 4,4'-Dibromotolane 2990-17-2P 3988-03-2P, 4,4'-Dibromobenzophenone 5405-28-7P, 1,2-Bis(4-bromophenyl)-1,2-dibromoethane 19802-70-1P, 2,3-Di(4-bromophenyl)quinoxaline 21655-73-2P 35578-47-3P, 4,4'-Dibromobenzil 194936-18-0P 194936-20-4P **194936-28-2P** 194936-31-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

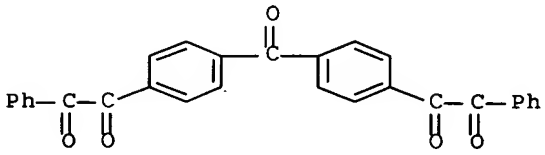
IT **72383-21-2P 188577-22-2P 188577-31-3P**
188577-36-8P 201336-92-7P 201336-93-8P
201336-94-9P 201336-95-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

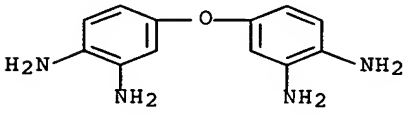
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

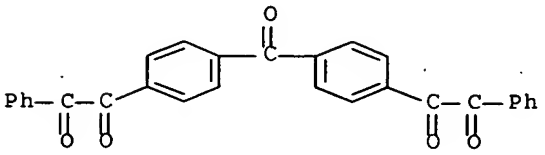
CRN 2676-59-7
CMF C12 H14 N4 O



RN 188577-22-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

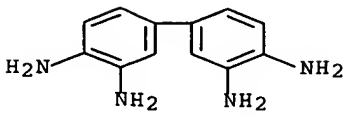
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

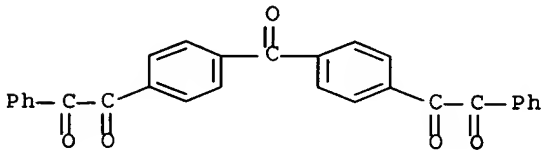
CRN 91-95-2
CMF C12 H14 N4



RN 188577-31-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

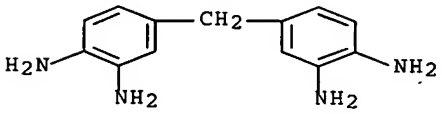
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

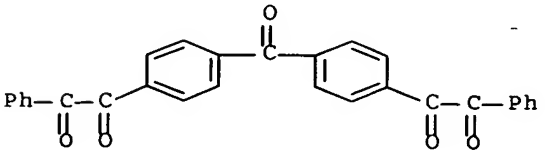
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-36-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

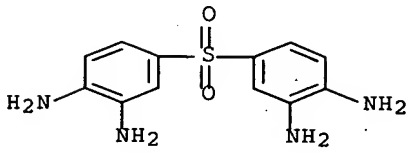
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

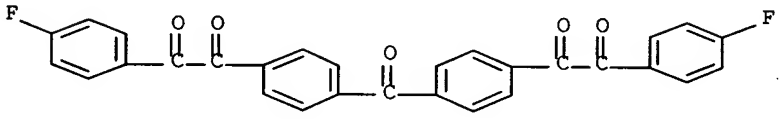
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 201336-92-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

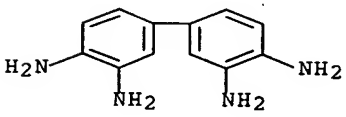
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

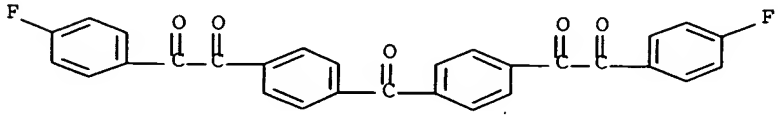
CRN 91-95-2
CMF C12 H14 N4



RN 201336-93-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

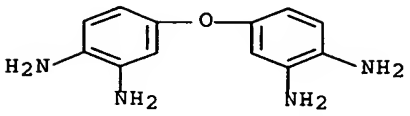
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

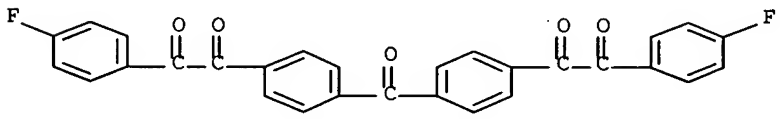
CRN 2676-59-7
CMF C12 H14 N4 O



RN 201336-94-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

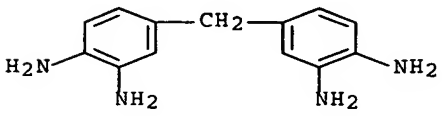
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

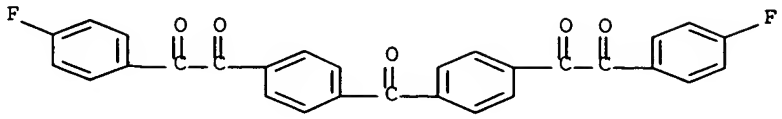
CRN 1779-05-1
CMF C13 H16 N4



RN 201336-95-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

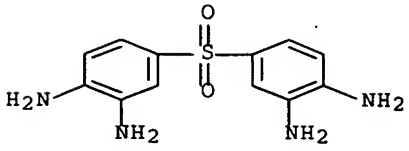
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

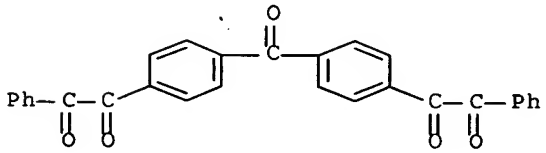
CRN 13224-79-8
CMF C12 H14 N4 O2 S



IT **72383-21-2DP**, functionalized **188577-22-2DP**, functionalized **188577-31-3DP**, functionalized **188577-36-8DP**, functionalized **201336-92-7DP**, functionalized **201336-93-8DP**, functionalized **201336-94-9DP**, functionalized **201336-95-0DP**, functionalized
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)
RN 72383-21-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

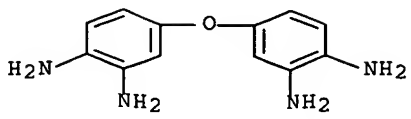
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

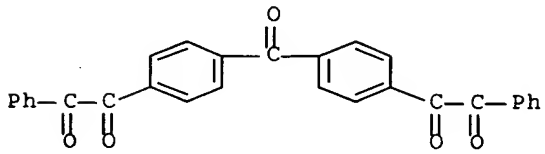
CRN 2676-59-7
CMF C12 H14 N4 O



RN 188577-22-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

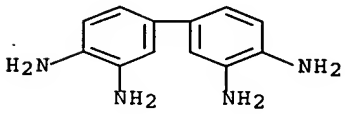
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

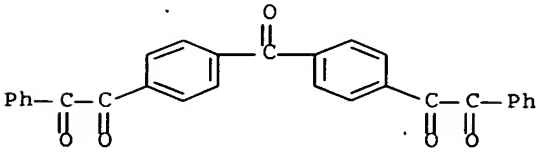
CRN 91-95-2
CMF C12 H14 N4



RN 188577-31-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

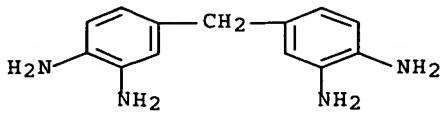
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

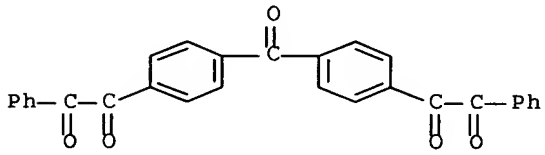
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-36-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

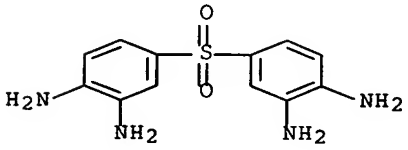
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

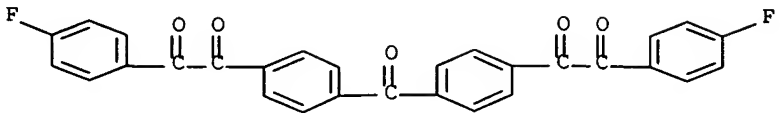
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 201336-92-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

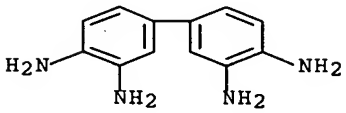
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

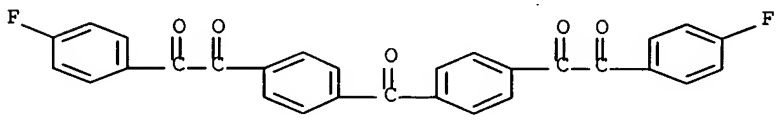
CRN 91-95-2
CMF C12 H14 N4



RN 201336-93-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

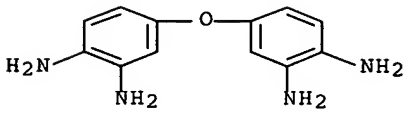
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7
CMF C12 H14 N4 O

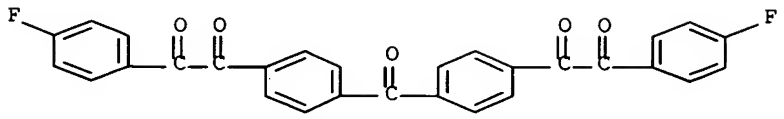


RN 201336-94-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

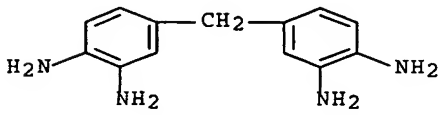
CRN 194936-28-2

CMF C29 H16 F2 O5



CM 2

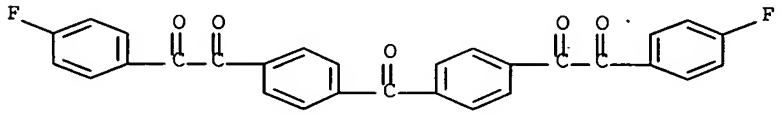
CRN 1779-05-1
CMF C13 H16 N4



RN 201336-95-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 13224-79-8
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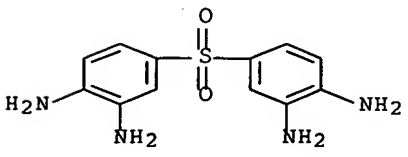
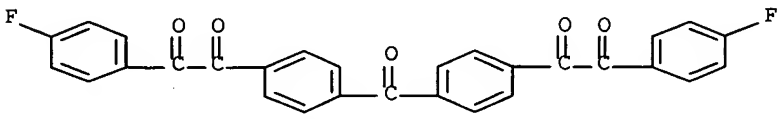


IT **194936-28-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

RN 194936-28-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:250956 HCAPLUS Full-text

DOCUMENT NUMBER: 139:53443

TITLE: New carboxylated poly(aryl ether quinoxalines)

AUTHOR(S): Keshtov, M. L.; Rusanov, A. L.; Komarova, L. I.; Keshtova, S. V.; Sarkisyan, G. B.; Ronova, I. A.

CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 119991, Russia

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (2002), 44(8), 1319-1324
CODEN: VSSBEE; ISSN: 1023-3091

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A number of carboxylated poly(arylesterquinoxalines) were synthesized by treating various poly(arylesterbenzyls) with 3,4-diaminobenzoic acid. The produced polymers were characterized by FTIR and 1313C NMR spectroscopy, and their glass transition temps. and thermooxidative stability were determined by DSC and TGA. It was shown that the glass transition temps. and temps. corresponding to the onset of degradation of these polymers are linearly proportional to the number of aromatic nuclei in Kuhn segments.

CC 35-8 (Chemistry of Synthetic High Polymers)

ST polyether polydiketone synthesis diaminobenzoic acid condensation polyquinoxaline

IT Elongation, mechanical
Glass transition temperature
Tensile strength
Thermal stability
(of aromatic polyether-polyketones and corresponding carboxy-containing polyquinoxalines)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, cardo, polydiketone-, reaction products with 3,4-diamonbenzoic acid, polyquinoxalines; preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, polydiketone-, reaction products with 3,4-diamonbenzoic acid, polyquinoxalines; preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

IT Cardo polymers

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketones, polydiketone-, reaction products with 3,4-diamonbenzoic acid, polyquinoxalines; preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, cardo, polydiketone-, reaction products with 3,4-diamonbenzoic acid, polyquinoxalines; preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, polydiketone-, reaction products with 3,4-diamonbenzoic acid, polyquinoxalines; preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

IT **200485-28-5P 200485-29-6P 200485-30-9P**
200485-31-0P 200485-40-1P 200485-41-2P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

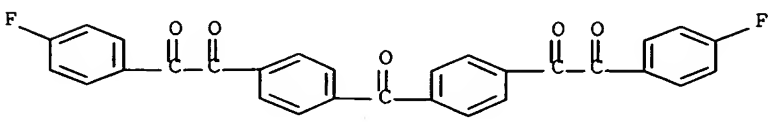
IT 619-05-6DP, 3,4-Diaminobenzoic acid, reaction products with aromatic polyether-polydiketones **200485-28-5DP**, reaction products with 3,4-diaminobenzoic acid **200485-29-6DP**, reaction products with 3,4-diaminobenzoic acid **200485-30-9DP**, reaction products with 3,4-diaminobenzoic acid **200485-31-0DP**, reaction products with 3,4-diaminobenzoic acid **200485-40-1DP**, reaction products with 3,4-diaminobenzoic acid **200485-41-2DP**, reaction products with 3,4-diaminobenzoic acid
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

IT **200485-28-5P 200485-29-6P 200485-30-9P**
200485-31-0P 200485-40-1P 200485-41-2P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aromatic polyether-polyketones and their transformation into corresponding carboxy-containing polyquinoxalines)

RN 200485-28-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

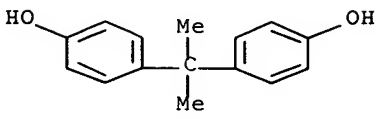
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



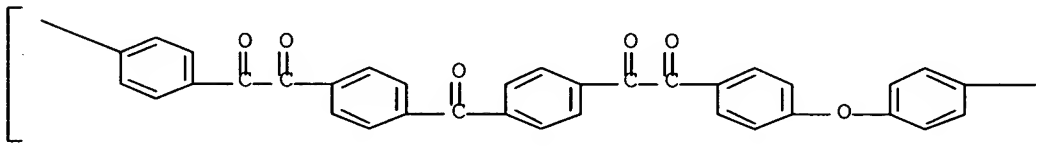
CM 2

CRN 80-05-7
CMF C15 H16 O2

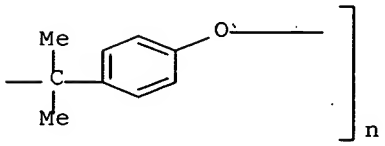


RN 200485-29-6 HCAPLUS
CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



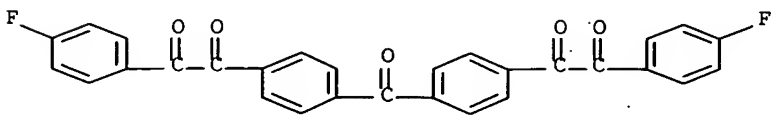
PAGE 1-B



RN 200485-30-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

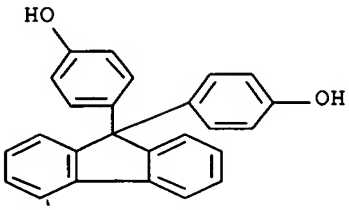
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 3236-71-3
CMF C25 H18 O2



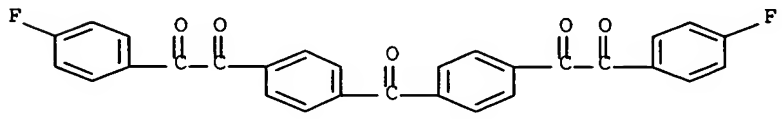
RN 200485-31-0 HCAPLUS
CN Poly[oxy-1,4-phenylene-9H-fluoren-9-ylidene-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
RN 200485-40-1 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone (9CI) (CA INDEX NAME)

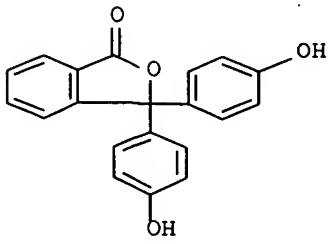
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



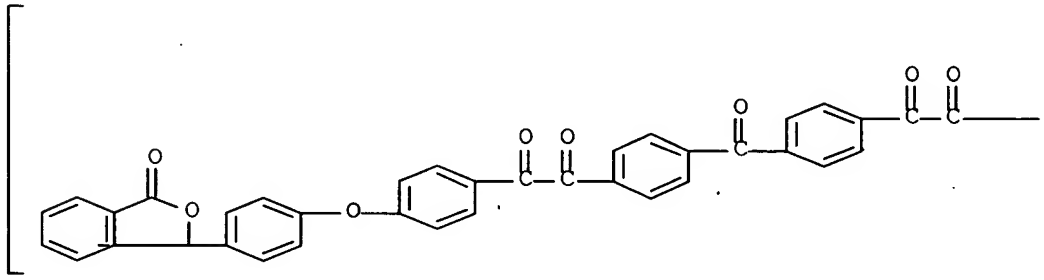
CM 2

CRN 77-09-8
CMF C20 H14 O4

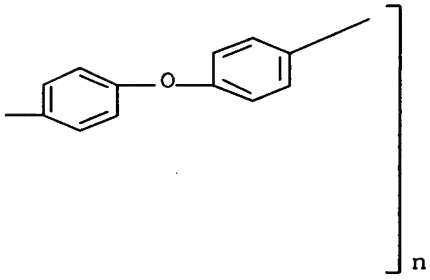


RN 200485-41-2 HCAPLUS
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

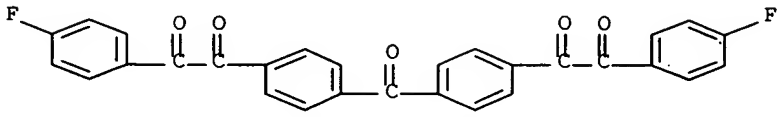


IT **200485-28-5DP**, reaction products with 3,4-diaminobenzoic acid
200485-29-6DP, reaction products with 3,4-diaminobenzoic acid
200485-30-9DP, reaction products with 3,4-diaminobenzoic acid
200485-31-0DP, reaction products with 3,4-diaminobenzoic acid
200485-40-1DP, reaction products with 3,4-diaminobenzoic acid
200485-41-2DP, reaction products with 3,4-diaminobenzoic acid
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of aromatic polyether-polyketones and their transformation into
corresponding carboxy-containing polyquinoxalines)
RN 200485-28-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,

polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

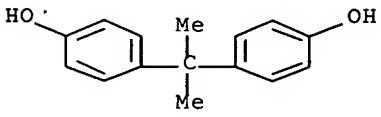
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



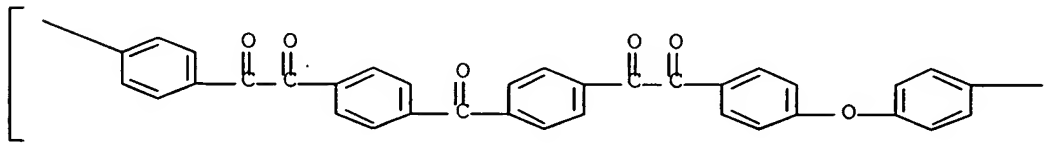
CM 2

CRN 80-05-7
CMF C15 H16 O2

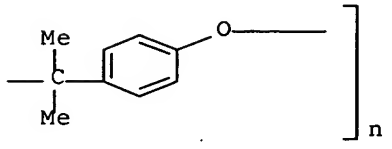


RN 200485-29-6 HCAPLUS
CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



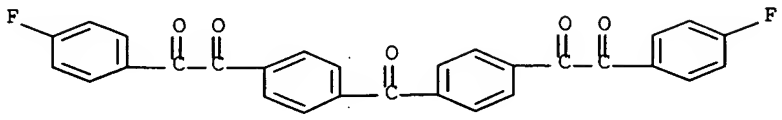
PAGE 1-B



RN 200485-30-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

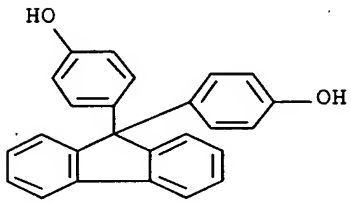
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 3236-71-3
CMF C25 H18 O2



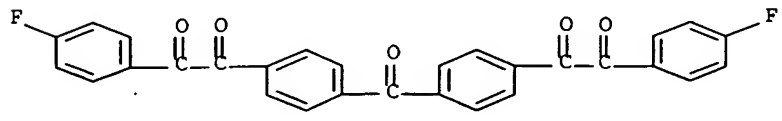
RN 200485-31-0 HCAPLUS
CN Poly[oxy-1,4-phenylene-9H-fluoren-9-ylidene-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
RN 200485-40-1 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone (9CI) (CA INDEX NAME)

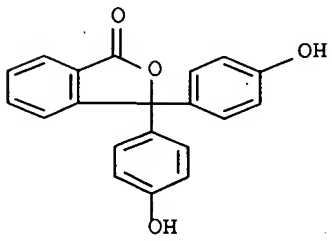
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



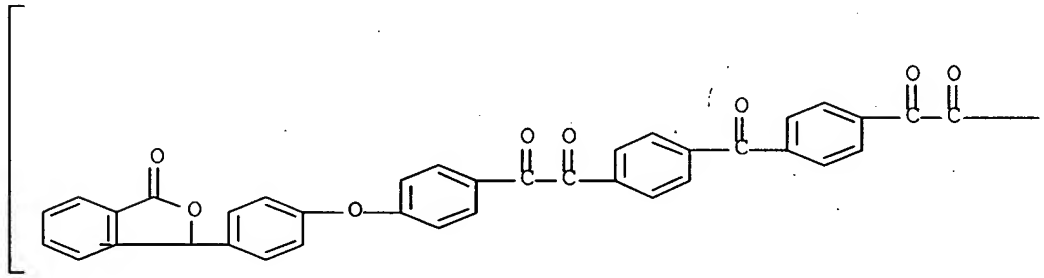
CM 2

CRN 77-09-8
CMF C20 H14 O4

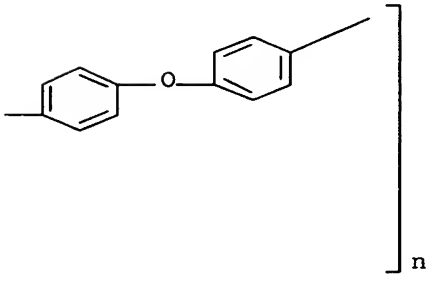


RN 200485-41-2 HCAPLUS
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



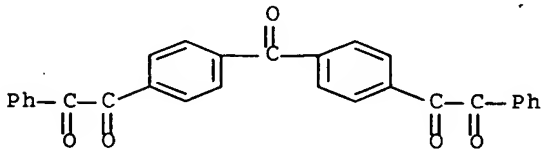
L63 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:753410 HCAPLUS Full-text

DOCUMENT NUMBER: 138:39891
TITLE: New silicon-containing phenylquinoxaline-imide polymers
AUTHOR(S): Hamciuc, Elena; Schulz, Burkhard; Kopnick, Thomas; Kaminorz, Yvette; Bruma, Maria
CORPORATE SOURCE: Institute of Macromolecular Chemistry, Iasi, 6600, Rom.
SOURCE: High Performance Polymers (2002), 14(1), 63-75
CODEN: HPPOEX; ISSN: 0954-0083
PUBLISHER: Sage Publications
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of new aromatic polyimides, with phenylquinoxaline rings and dimethylsilane units, has been synthesized by solution polycondensation reaction of aromatic diamines containing phenylquinoxaline groups with a dianhydride incorporating dimethylsilane linkage, namely bis (3,4-dicarboxyphenyl) dimethylsilane dianhydride. All polymers were easily soluble in organic solvents, such as N-methylpyrrolidinone, dimethylacetamide, pyridine and chloroform, and showed high thermal stability with decomposition temperature being above 480°C and glass transition temperature in the range of 245-266°C. Very thin coatings were deposited from polymer solns. onto silicon wafers and exhibited smooth, pinhole-free surface in atomic force microscopy investigations. These polymers showed blue fluorescence in solution and films, with a maximum in the range of 415-425 nm.

CC 37-3 (Plastics Manufacture and Processing)
ST silicon contg phenylquinoxaline polyimide
IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyether-; silicon-containing phenylquinoxaline-imide polymers)
IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyether-polyimide-; silicon-containing phenylquinoxaline-imide polymers)
IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyether-polyketone-; silicon-containing phenylquinoxaline-imide polymers)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyimide-; silicon-containing phenylquinoxaline-imide polymers)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyimide-polyketone-; silicon-containing phenylquinoxaline-imide polymers)
IT Polycarbosilanes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-; silicon-containing phenylquinoxaline-imide polymers)
IT Polycarbosilanes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-polyketone-; silicon-containing phenylquinoxaline-imide polymers)
IT Fluorescence
Glass transition temperature
UV and visible spectra
Viscosity
(silicon-containing phenylquinoxaline-imide polymers)
IT 478812-48-5P 478812-49-6P 478812-50-9P 478812-51-0P 478812-52-1P
478812-53-2P 478812-54-3P 478812-55-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(silicon-containing phenylquinoxaline-imide polymers)
IT 3363-97-1 6264-66-0 21454-19-3 **31224-78-9** 47709-64-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(silicon-containing phenylquinoxaline-imide polymers)
IT 42297-18-7P 86386-79-0P 86386-80-3P 86386-81-4P 247939-94-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(silicon-containing phenylquinoxaline-imide polymers)
IT **31224-78-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(silicon-containing phenylquinoxaline-imide polymers)
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:551168 HCAPLUS Full-text
DOCUMENT NUMBER: 131:272306
TITLE: New approach to the synthesis of poly(quinoxalines) bearing diaryl ether substituents
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.; Petrovskii, P. V.
CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1999), 41(1), 66-69
CODEN: VSSBEE; ISSN: 1023-3091
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB A new synthetic method was to developed to prepare poly(quinoxalines) containing diaryl ether side groups which involves polymer-analogous transformations of poly(4-fluorophenyl)quinoxalines. Aromatic nucleophilic substitution was carried over via two synthetic routes. According to the first approach, the synthesized poly[(4-fluorophenyl)quinoxalines] were isolated from solution, dissolved in N-methyl-2-pyrrolidone, and treated with m-cresol in the presence of K2CO3. The second method includes the synthesis of poly[(4-fluorophenyl)quinoxalines] in m-cresol, followed by the addition of excess N-methyl-2-pyrrolidone and K2CO3 and the substitution of fluorine atom; at the first stage m-cresol is used as a solvent, while at the second stage, it works as a reagent.
CC 35-8 (Chemistry of Synthetic High Polymers)
ST fluorine nucleophilic substitution cresol fluorophenyl polyquinoxaline aryl ether synthesis
IT Polyquinoxalines
Polyquinoxalines
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorine-containing, -polyether; synthesis of poly(quinoxalines) bearing

diaryl ether substituents via F nucleophilic substitution with m-cresol)

IT Tensile strength
(of films; of poly(quinoxalines) bearing diaryl ether substituents)

IT Dielectric constant
Thermal stability
(of poly(quinoxalines) bearing diaryl ether substituents)

IT Polyquinoxalines
Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, reaction products, with m-cresol; synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

IT Fluoropolymers, reactions
Fluoropolymers, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyquinoxaline-, -polyether; synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

IT Polyethers, preparation
Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-, reaction products, with m-cresol; synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

IT Substitution reaction, nucleophilic
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

IT 108-39-4DP, m-Cresol, reaction products with fluorophenyl side group-containing polyquinoxalines **201336-93-8DP**, nucleophilic substitution product with m-cresol 201490-68-8DP, nucleophilic substitution product with m-cresol
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

IT **201336-93-8P** 201490-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

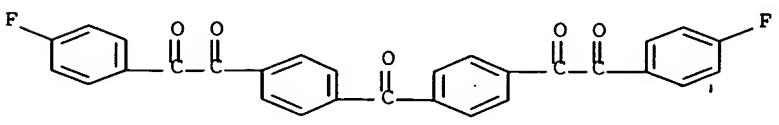
IT **201336-93-8DP**, nucleophilic substitution product with m-cresol
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

RN 201336-93-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

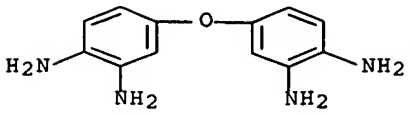
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

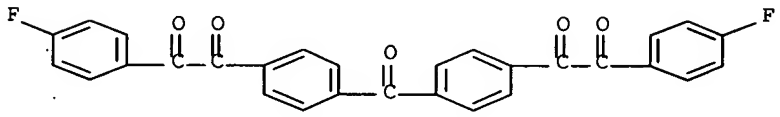
CRN 2676-59-7
CMF C12 H14 N4 O



IT **201336-93-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
RN 201336-93-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

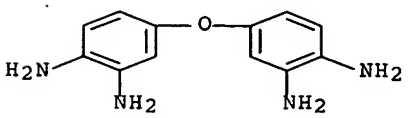
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7
CMF C12 H14 N4 O



L63 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:343237 HCAPLUS Full-text
DOCUMENT NUMBER: 131:158052
TITLE: Phenyl-substituted polyphenylenes from chloral derivatives
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.; Shchegolikhin, A. N.; Petrovskii, P. V.; Keshtova, S.

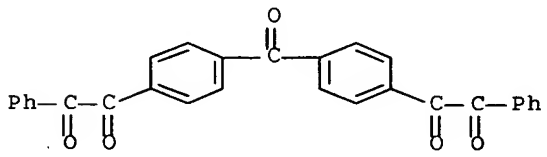
V.; Blagodatskikh, I. V.; Mikitaev, A. K.
CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1998), 40(6), 902-908
CODEN: VSSBEE; ISSN: 1023-3091
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB New bis(triphenylcyclopentadienone)arylenes were synthesized by the reaction of bis(phenylgly- oxalyl)arylenes with 1,3-diphenylacetone in ethanol. New phenyl-substituted polyphenylenes were obtained from bis(triphenylcyclopentadienone)arylenes and bis(acetylene)s by the Diels-Alder reaction in trichlorobenzene. Some properties of the resulting polymers and the films made of these polymers were studied.
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36
ST diphenylacetone bisphenylglyoxalylarylene reaction bistriphenylcyclopentadienonearylene monomer prepn; phenyl substituted phenylene group contg polymer prepn; polyacetylene Diels Alder reaction phenylene group polymer prepn
IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyacetylene-; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
IT Polyacetylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
IT Diels-Alder reaction
Elongation, mechanical
Tensile strength
(preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
IT Polyacetylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
IT 479-33-4
RL: PRP (Properties)
(model compound; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
IT 147613-78-3P 207450-54-2P 236743-07-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
IT 236743-08-1DP, decarbonylated 236743-10-5DP, decarbonylated
236743-11-6DP, decarbonylated 236743-12-7DP, decarbonylated
236743-13-8DP, decarbonylated 236743-14-9DP, decarbonylated
236743-15-0P 236743-16-1P 236743-17-2P 236743-18-3P 236743-19-4P
236743-20-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of phenyl-substituted phenylene

group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)

IT 102-04-5, 1,3-Diphenylacetone 115-19-5 5630-56-8, 4,4'-Diiodobenzophenone **31224-78-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant in monomer preparation; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)

IT **31224-78-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant in monomer preparation; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)

RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)

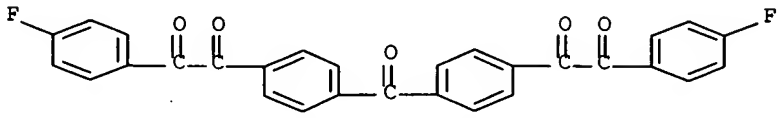


L63 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:440027 HCAPLUS Full-text
DOCUMENT NUMBER: 129:122882
TITLE: Evaluation of the reactivity of new activated difluoroaromatic compounds
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Keshtova, S. V.
CORPORATE SOURCE: A. N. Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (1998), 47(4), 602-603
CODEN: RCBUEY; ISSN: 1066-5285
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To evaluate the reactivity of new difluoroarom. compds. in nucleophilic substitution, the pos. charges on carbon atoms of C-F bonds were calculated using the quantum-chemical semiempirical PM3 method. A correlation between the charges calculated and the chemical shifts in the 19F NMR spectra was established.

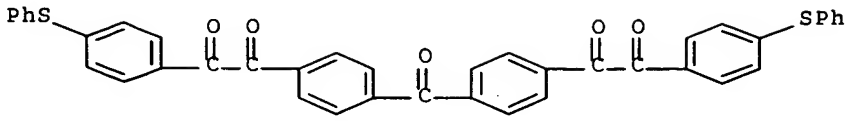
CC 35-2 (Chemistry of Synthetic High Polymers)
ST reactivity activated difluoroarom compd
IT NMR (nuclear magnetic resonance)
(in study of activated difluoroarom. compds.)
IT Reactivity ratio in polymerization
(of activated difluoroarom. compds.)
IT 194936-18-0 194936-19-1 194936-20-4 194936-23-7 194936-26-0 **194936-28-2** 194936-30-6 194936-31-7 210405-48-4
RL: PRP (Properties)
(reactivity of)
IT **194936-28-2**
RL: PRP (Properties)

(reactivity of)
RN 194936-28-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

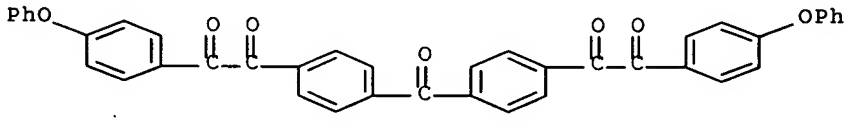


REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

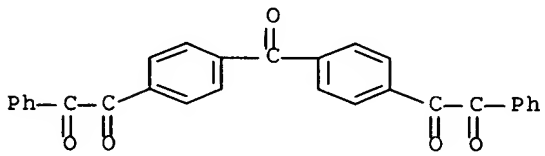
L63 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:272580 HCAPLUS Full-text
DOCUMENT NUMBER: 129:4473
TITLE: New bis(tetraarylcyclopentadienones)
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Keshtova, S. V.; Petrovskii, P. V.; Shchegolikhin, A. N.; Kirillov, A. A.; Kireev, V. V.
CORPORATE SOURCE: A. N. Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (1998), 47(2), 318-320
CODEN: RCBUEY; ISSN: 1066-5285
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reactions of new bis(α-diketones) with 1,3-diphenylacetone resulted in the formation of new bis(tetraarylcyclopentadienones).
CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 24
ST arylcyclopentadienone prepn; carbonyldiphenylene biscyclopentadienone prepn; oxocyclopentadienyl benzophenone prepn
IT Ketones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diketones; preparation of tetraarylcyclopentadienones)
IT 207450-54-2P 207450-55-3P 207450-56-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 102-04-5, 1,3-Diphenylacetone **182196-74-3 182196-75-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldi-4,1-phenylene)bis[triphenylcyclopentadienones])
IT **31224-78-9**, p,p'-Carbonyldibenzil
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldiphenylene)bis[triphenylcyclopentadienones])
IT **182196-74-3 182196-75-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldi-4,1-phenylene)bis[triphenylcyclopentadienones])
RN 182196-74-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]- (CA INDEX NAME)



RN 182196-75-4 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)



IT **31224-78-9**, p,p'-Carbonyldibenzil
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldiphenylene)bis[triphenylcyclopentadienones])
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:6725 HCAPLUS Full-text
DOCUMENT NUMBER: 128:115308
TITLE: Poly(4-fluorophenylquinoxaline)s
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.; Mikitaev, A. K.
CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1997), 39(10), 1584-1587
CODEN: VSSBEE; ISSN: 1023-3091
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Poly(4-fluorophenylquinoxaline)s were prepared by polycyclocondensation of new bis(α-diketone)s, i.e., bis(4-fluorophenylglyoxalyl)arylenes, with bis(o-phenylenediamine)s. The effect of fluorine atoms in poly(phenylquinoxaline)s on the solubility and thermal characteristics of the resulting polymers was studied. The possibility of using poly(4-fluorophenylquinoxaline)s in the synthesis of polymers with substituents varying in bulkiness and structure is discussed.
CC 35-5 (Chemistry of Synthetic High Polymers)

ST polyphenylquinoxaline fluoropolymer prepn property
IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyketone-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyketones
Polyketones
Polyketones
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyphenylquinoxaline-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyketones
Polyketones
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
IT Polyethers, preparation
Polyethers, preparation
Polyethers, preparation
Polysulfones, preparation
Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyethers, preparation
Polyethers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyethers, preparation
Polyethers, preparation
Polyketones
Polyketones
Polysulfones, preparation
Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-, fluorine-containing; preparation and

characterization
of poly(4-fluorophenylquinoxaline)s)
IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyethers, preparation
Polyketones
Polyketones
Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
IT Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polysulfones, preparation
Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
IT Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketones, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketones; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
IT Polyketones
Polyketones
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polysulfone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
IT Polyketones
Polyketones
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
IT Polyquinoxalines
Polyquinoxalines

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-polyketone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-polyketone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyketone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyketone-polysulfone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyketone-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polysulfone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT **194936-28-2** 194936-31-7
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(monomer; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

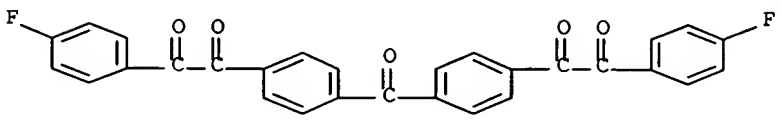
IT **201336-92-7P 201336-93-8P 201336-94-9P**
201336-95-0P 201336-96-1P 201336-97-2P 201336-98-3P
201336-99-4P 201490-67-7P 201490-68-8P 201490-69-9P 201490-70-2P
201490-71-3P 201490-72-4P 201490-73-5P 201490-77-9P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT **72383-21-2P** 72412-83-0P **188577-22-2P**
188577-31-3P 188577-36-8P 188652-39-3P 188652-40-6P
188652-41-7P 201337-00-0P 201337-01-1P 201337-02-2P 201337-03-3P
201490-74-6P 201490-75-7P 201490-76-8P 201490-78-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT 194936-18-0 194936-20-4
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(reactant in monomer synthesis; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT **194936-28-2**
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(monomer; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

RN 194936-28-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



IT **201336-92-7P 201336-93-8P 201336-94-9P**
201336-95-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and characterization of poly(4-fluorophenylquinoxaline)s)

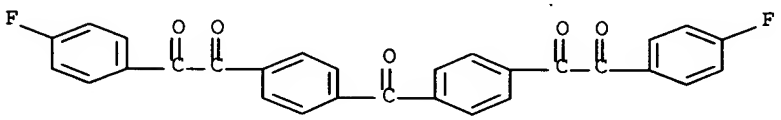
RN 201336-92-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

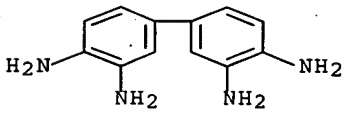
CMF C29 H16 F2 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



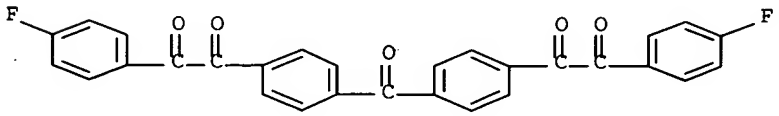
RN 201336-93-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

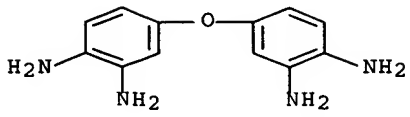
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7

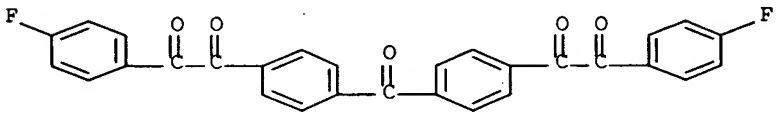
CMF C12 H14 N4 O



RN 201336-94-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

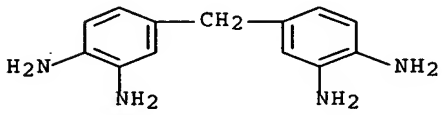
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

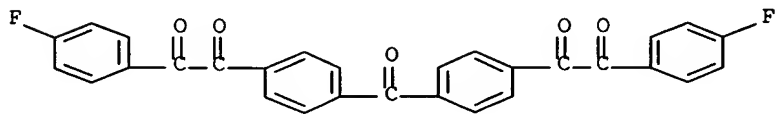
CRN 1779-05-1
CMF C13 H16 N4



RN 201336-95-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

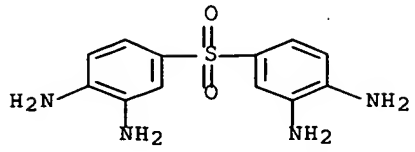
CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



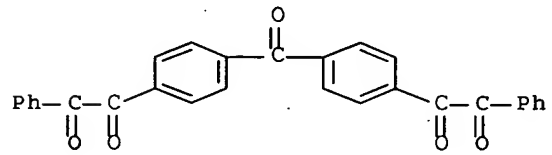
IT **72383-21-2P 188577-22-2P 188577-31-3P**
188577-36-8P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

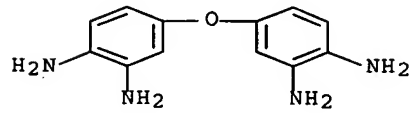
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

CRN 2676-59-7
CMF C12 H14 N4 O

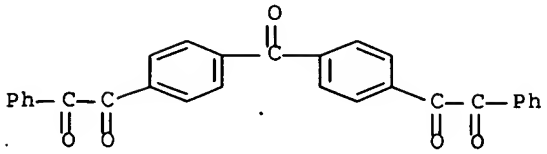


RN 188577-22-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

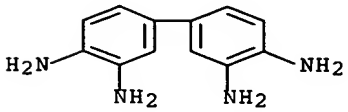
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

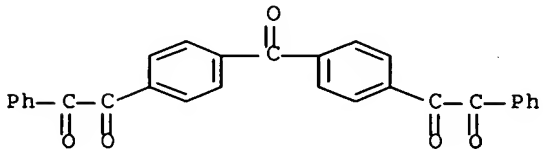
CRN 91-95-2
CMF C12 H14 N4



RN 188577-31-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

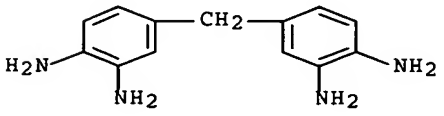
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

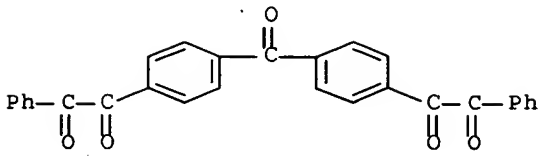
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-36-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

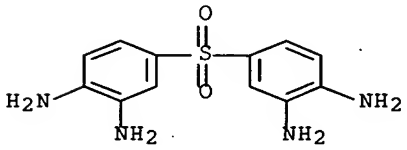
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

CRN 13224-79-8
CMF C12 H14 N4 O2 S



L63 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:777402 HCAPLUS Full-text
DOCUMENT NUMBER: 128:75754
TITLE: New aromatic polyethers bearing α-diketone groups
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Keshtova, S. V.; Belomoina, N. M.; Shchegolikhin, A. N.; Mikitaev, A. K.; Askadskii, A. A.
CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1997), 39(9), 1539-1542
CODEN: VSSBEE; ISSN: 1023-3091
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB New aromatic polyethers bearing α-diketone groups in the backbone chains were prepared by the reactions of new difluoroarom. compds. containing these groups with various bisphenolates under the conditions of aromatic nucleophilic polysubstitution. It was shown that highly viscous polymers are obtained when polycondensation is carried out in a medium of sulfolane.

CC 35-5 (Chemistry of Synthetic High Polymers)
ST arom polydiketone polyether cardo prepn property; tensile strength arom polyether polydiketone; thermal stability arom polyether polydiketone; glass transition arom polyether polydiketone
IT Glass transition
Tensile strength
Thermal stability
(of aromatic polyethers bearing α-diketone groups)
IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polydiketone-, aromatic, cardo-; preparation of aromatic polyethers bearing
α-diketone groups)
IT Polyketones
Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polydiketones, polyether-, aromatic, cardo-; preparation of aromatic polyethers
bearing α-diketone groups)
IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic, cardo, -polydiketone-; preparation of aromatic polyethers
bearing α-diketone groups)
IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic; preparation of aromatic polyethers bearing α-diketone
groups)
IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, cardo, aromatic, -polydiketone-; preparation of aromatic polyethers
bearing α-diketone groups)
IT Cardo polymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketones, aromatic, -polydiketone-; preparation of aromatic
polyethers bearing α-diketone groups)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, aromatic, cardo, -polydiketone-; preparation of aromatic polyethers
bearing α-diketone groups)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, aromatic; preparation of aromatic polyethers bearing
α-diketone groups)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, cardo, aromatic, -polydiketone-; preparation of aromatic polyethers
bearing α-diketone groups)
IT 584-08-7, Potassium carbonate
RL: CAT (Catalyst use); USES (Uses)
(preparation of aromatic polyethers bearing α-diketone groups)
IT **200485-28-5P 200485-29-6P 200485-30-9P**
200485-31-0P 200485-32-1P 200485-33-2P 200485-34-3P
200485-35-4P 200485-36-5P 200485-37-6P 200485-38-7P 200485-39-8P
200485-40-1P 200485-41-2P 200485-42-3P 200485-43-4P
200485-44-5P 200485-45-6P **200485-46-7P 200485-47-8P**
200485-48-9P 200485-49-0P 200485-50-3P 200485-51-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of aromatic polyethers bearing α-diketone groups)
IT **200485-28-5P 200485-29-6P 200485-30-9P**
200485-31-0P 200485-40-1P 200485-41-2P
200485-46-7P 200485-47-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

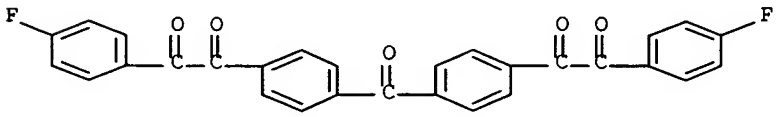
(preparation of aromatic polyethers bearing α-diketone groups)

RN 200485-28-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

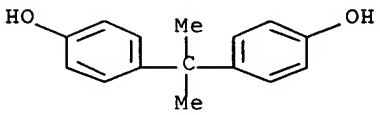
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

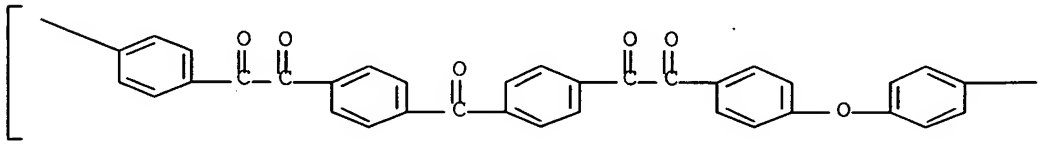
CRN 80-05-7
CMF C15 H16 O2



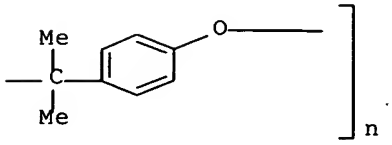
RN 200485-29-6 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

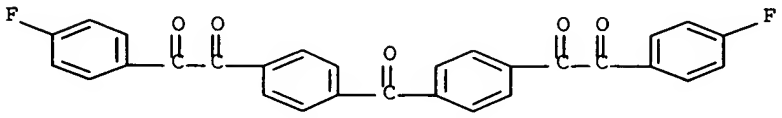


RN 200485-30-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

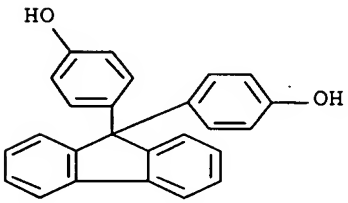
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 3236-71-3
CMF C25 H18 O2



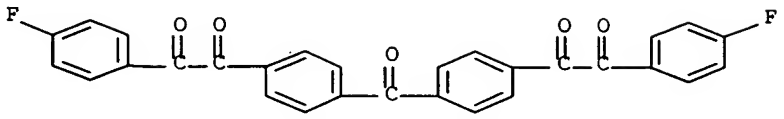
RN 200485-31-0 HCAPLUS
CN Poly[oxy-1,4-phenylene-9H-fluoren-9-ylidene-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
RN 200485-40-1 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone (9CI) (CA INDEX NAME)

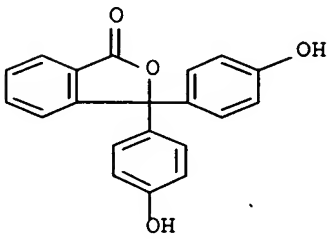
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



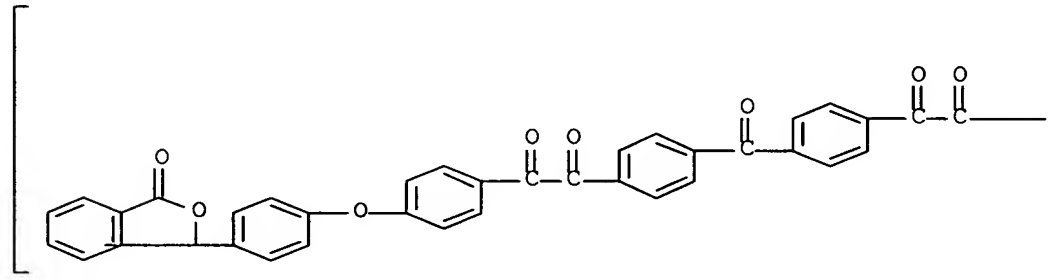
CM 2

CRN 77-09-8
CMF C20 H14 O4

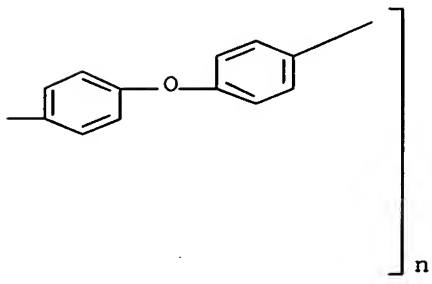


RN 200485-41-2 HCAPLUS
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



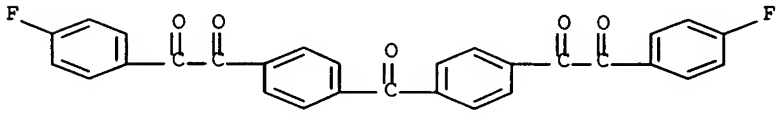
PAGE 1-B



RN 200485-46-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(1-phenylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

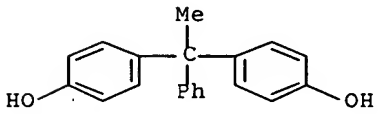
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



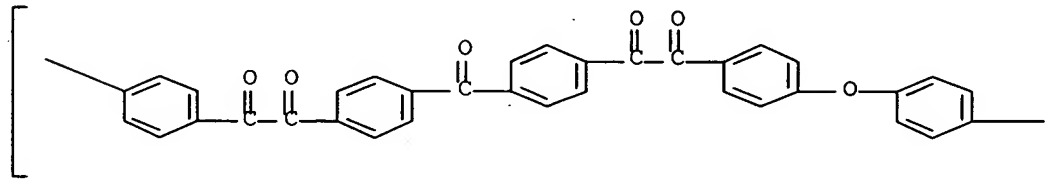
CM 2

CRN 1571-75-1
CMF C20 H18 O2

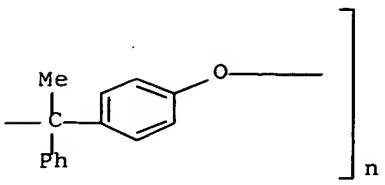


RN 200485-47-8 HCAPLUS
CN Poly[oxy-1,4-phenylene(1-phenylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

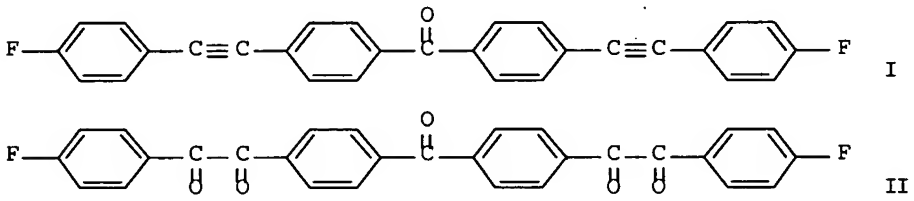
PAGE 1-A



PAGE 1-B



L63 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:525292 HCAPLUS Full-text
DOCUMENT NUMBER: 127:220437
TITLE: New activated bisfluoroaromatic compounds
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.; Mikitaev, A. K.; Sarkisyan, G. B.; Keshtova, S. V.
CORPORATE SOURCE: A. N. Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (1997), 46(4), 777-779
CODEN: RCBUEY; ISSN: 1066-5285
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



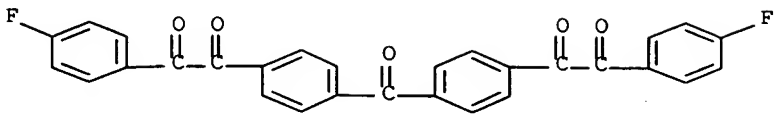
I

II

AB Bis(p-fluorophenylethynyl) derivs. were obtained by the reaction of bisbromoarom. compds. with p-fluorophenylacetylene in the presence of a Pd catalyst. Subsequent oxidation of these products using an I2-DMSO system led to new bis(p-fluorophenylglyoxalyl)ketones, α-diketones, and heterocyclic compds. For example, the coupling of (4- fluorophenyl)acetylene with 4,4'-dibromobenzophenone gave ketone I. Further oxidation of I gave the bisglyoxal II.

CC 25-20 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
ST bisfluoroarom compd prepn
IT 766-98-3, (4-Fluorophenyl)acetylene 3988-03-2, 4,4'-Dibromobenzophenone 19802-70-1 35578-47-3, 1,2-Bis(4-bromophenyl)-1,2-ethanedione 36741-17-0 101579-12-8 186406-38-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bisfluoroarom. compds.)
IT 194936-18-0P 194936-19-1P 194936-20-4P 194936-23-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of bisfluoroarom. compds.)
IT 194936-22-6P 194936-26-0P **194936-28-2P** 194936-30-6P 194936-31-7P 194936-32-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bisfluoroarom. compds.)
IT **194936-28-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bisfluoroarom. compds.)
RN 194936-28-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI)

(CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:151648 HCAPLUS Full-text
DOCUMENT NUMBER: 126:251511
TITLE: Synthesis and investigation of new poly(arylquinoxaline)s
AUTHOR(S): Rusanov, A. l; Keshtov, M. L.; Belomoina, n M.; Budylina, O. N.; Mikitaev, A. K.; Mercer, F.
CORPORATE SOURCE: Nesmeyanov Inst. Org. Compd., Russ. Acad. Sci., Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1996), 38(11), 1797-1802
CODEN: VSSBEE
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB New 4,4'-bis(arylglyoxaloyl)benzophenones were prepared on the basis of 4,4'-diiodobenzophenone-a derivative of chloral. The reaction between 4,4'-bis(arylglyoxaloyl)benzophenones and aromatic bis(o-phenylenediamine)s leads ot poly(arylqinoxaline)s containing Ph, di-Ph, di-Ph ether, di-Ph thioether, and benzophenone side groups. The resulting polymers combine enhanced solubility and high thermal characteristics. The films were prepared and their mech. and dielec. properties were studied.

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 37

ST glyoxalyl aryl benzophenone prepn polymn tetraamine; polyarylquinoxaline synthesis arylqlyoxalylbenzophenone polymn aryltetraamine; dielec property polyarylquinoxaline polyketone film; thermal stability polyarylquinoxaline polyketone polysulfone film; tensile strength polyarylquinoxaline polyketone polyether film

IT Dielectric constant
(at 0% humidity; of poly(arylquinoxaline) films)

IT Tensile strength
Thermal stability
Yield strength
(of poly(arylquinoxaline) films)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, -polyketone; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-, -polyketone; preparation and mech. and dielec. properties

of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-, polyketone-; preparation and mech. and dielec. properties
of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polysulfone-, polyketone-; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 536-74-3, Phenylacetylene 4200-06-0, 4-(Phenoxy)phenylacetylene
5630-56-8, 4,4'-Diiodobenzophenone 29079-00-3, (1,1'-Biphenyl-4-yl)acetylene 97418-73-0, 4-(Phenylthio)phenylacetylene 119754-17-5, 4-(Benzoyl)phenylacetylene
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer synthesis; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 49674-70-6P, 4,4'-Bis(phenylethynyl)benzophenone 182196-68-5P, 4,4'-Bis{2-[p-(phenylthio)phenyl]ethynyl}benzophenone 182196-69-6P
182196-70-9P 182196-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer synthesis; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT **31224-78-9P**, 4,4'-Bis(phenylglyoxalyl)benzophenone
182196-74-3P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone
182196-75-4P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone
182196-76-5P, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone
182196-78-7P, 4,4'-Bis[4-(1,1'-biphenylyl)glyoxalyl]benzophenone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 13965-03-2, Bis(triphenylphosphine)palladium dichloride
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 603-35-0, Triphenylphosphine, uses 7681-65-4, Cuprous iodide
RL: CAT (Catalyst use); USES (Uses)
(polymerization cocatalyst; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 121-44-8, uses
RL: CAT (Catalyst use); USES (Uses)
(preparation and mech. and dielec. properties of poly(arylquinoxalines) with
improved solubility and high thermal stability)

IT **188577-31-3P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and mech. and dielec. properties of poly(arylquinoxalines) with
improved solubility and high thermal stability)

IT **72383-21-2P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis(phenylglyoxalyl)benzophenone copolymer 72412-83-0P

188577-22-2P, 4,4'-Bis(phenylglyoxalyl)benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-23-3P**, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-24-4P**, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-25-5P**, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-26-6P**, 4,4'-Bis[4-(1,1'-biphenylyl)glyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-27-7P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone copolymer **188577-28-8P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone copolymer **188577-29-9P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone copolymer **188577-30-2P** **188577-31-3DP**, oxidized **188577-32-4P** **188577-33-5P** **188577-34-6P** **188577-35-7P** **188577-36-8P** **188577-37-9P** **188577-38-0P** **188577-39-1P** **188577-40-4P** 188652-39-3P, 4,4'-Bis(phenylglyoxalyl)benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-40-6P 188652-41-7DP, oxidized 188652-41-7P 188652-42-8P, 4,4'-Bis[4-(1,1'-biphenylyl)glyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-43-9P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-44-0P 188652-45-1P 188652-46-2P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-47-3P 188652-48-4P 188652-49-5P 188652-50-8P 188652-51-9P 188652-52-0P 188652-53-1P 188652-54-2P, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-55-3P 188652-56-4P 188652-57-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 68-12-2, uses

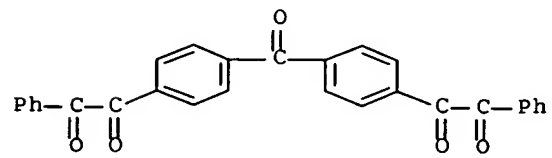
RL: NUU (Other use, unclassified); USES (Uses)
(solvent for polymerization; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT **31224-78-9P**, 4,4'-Bis(phenylglyoxalyl)benzophenone **182196-74-3P**, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone **182196-75-4P**, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone **182196-76-5P**, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone **182196-78-7P**, 4,4'-Bis[4-(1,1'-biphenylyl)glyoxalyl]benzophenone

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

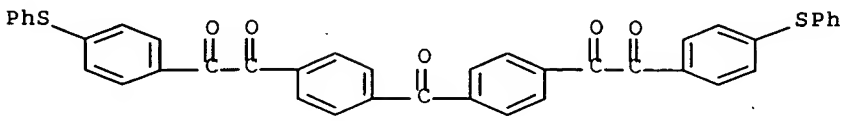
RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)

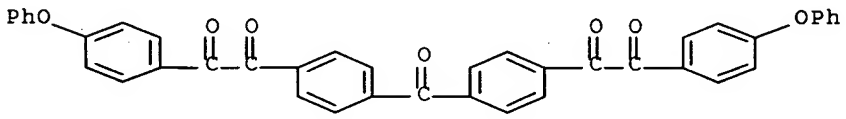


RN 182196-74-3 HCAPLUS

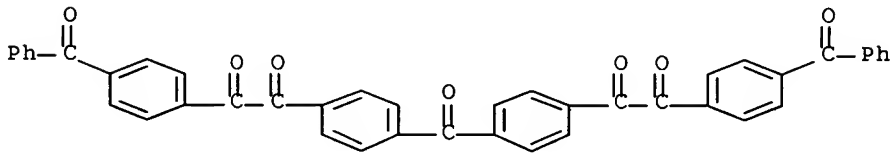
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-
(CA INDEX NAME)



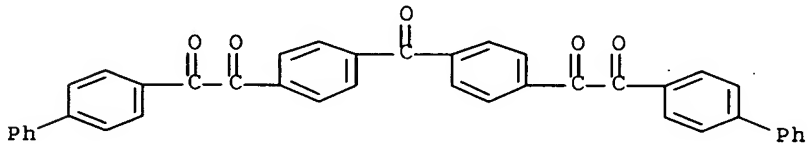
RN 182196-75-4 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)- (9CI)
(CA INDEX NAME)



RN 182196-76-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)- (9CI)
(CA INDEX NAME)



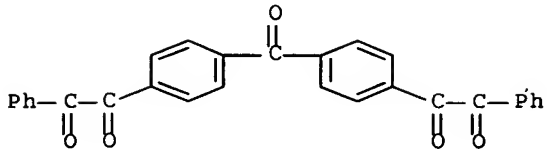
RN 182196-78-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-
(9CI) (CA INDEX NAME)



IT **188577-31-3P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and mech. and dielec. properties of poly(arylquinoxalines)
with
improved solubility and high thermal stability)
RN 188577-31-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with
4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

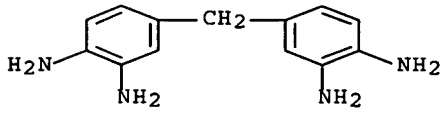
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

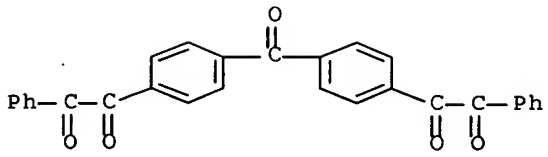
CRN 1779-05-1
CMF C13 H16 N4



IT **72383-21-2P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis(phenylglyoxalyl)benzophenone copolymer **188577-22-2P**, 4,4'-Bis(phenylglyoxalyl)benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-23-3P**, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-24-4P**, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-25-5P**, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-26-6P**, 4,4'-Bis[4-(1,1'-biphenylyl)glyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer **188577-27-7P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone copolymer **188577-28-8P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone copolymer **188577-29-9P**, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone copolymer **188577-30-2P** **188577-31-3DP**, oxidized **188577-32-4P** **188577-33-5P** **188577-34-6P** **188577-35-7P** **188577-36-8P** **188577-37-9P** **188577-38-0P** **188577-39-1P** **188577-40-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and mech. and dielec. properties of poly(arylquinoxalines) with
improved solubility and high thermal stability)
RN 72383-21-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

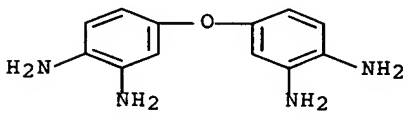
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

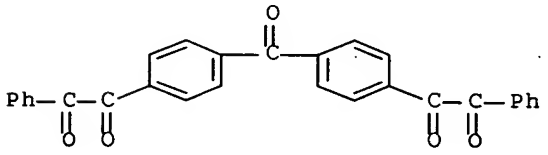
CRN 2676-59-7
CMF C12 H14 N4 O



RN 188577-22-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

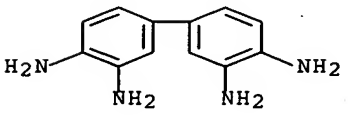
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

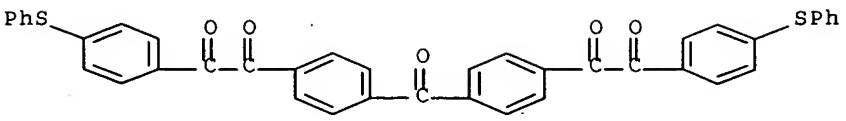
CRN 91-95-2
CMF C12 H14 N4



RN 188577-23-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

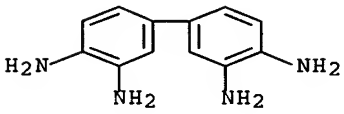
CM 1

CRN 182196-74-3
CMF C41 H26 O5 S2



CM 2

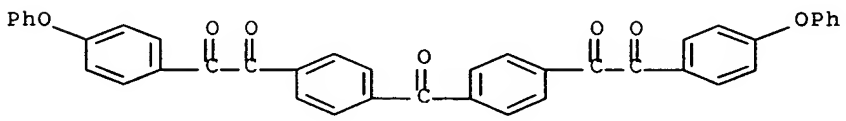
CRN 91-95-2
CMF C12 H14 N4



RN 188577-24-4 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

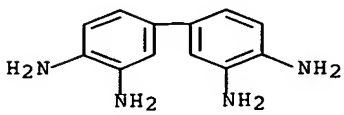
CM 1

CRN 182196-75-4
CMF C41 H26 O7



CM 2

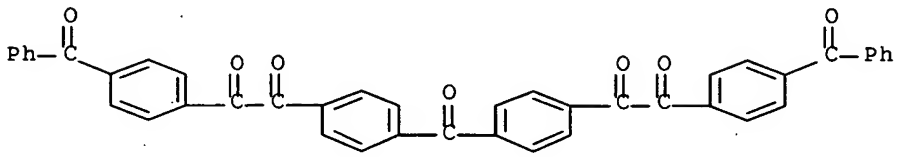
CRN 91-95-2
CMF C12 H14 N4



RN 188577-25-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

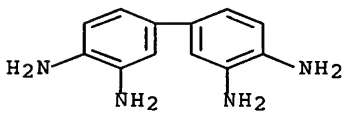
CM 1

CRN 182196-76-5
CMF C43 H26 O7



CM 2

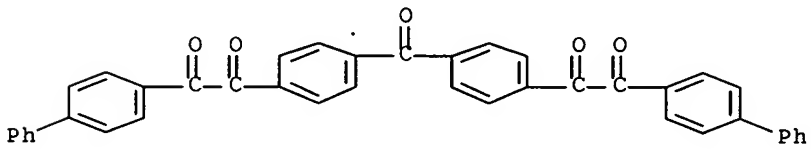
CRN 91-95-2
CMF C12 H14 N4



RN 188577-26-6 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

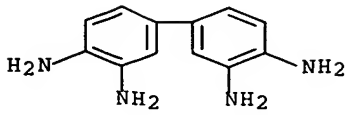
CM 1

CRN 182196-78-7
CMF C41 H26 O5



CM 2

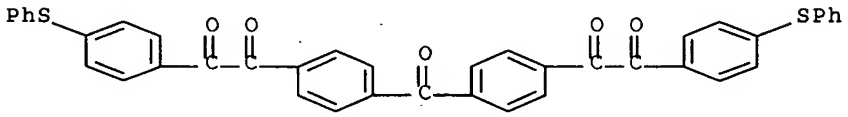
CRN 91-95-2
CMF C12 H14 N4



RN 188577-27-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

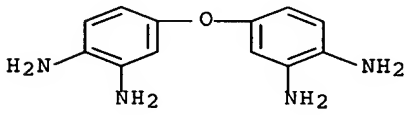
CM 1

CRN 182196-74-3
CMF C41 H26 O5 S2



CM 2

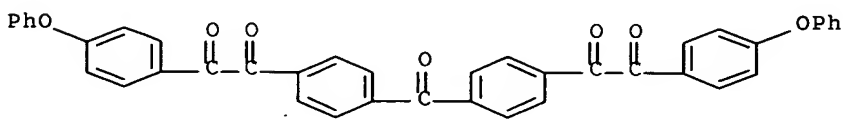
CRN 2676-59-7
CMF C12 H14 N4 O



RN 188577-28-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

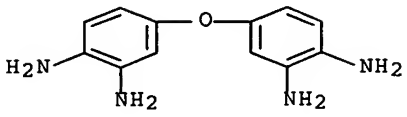
CRN 182196-75-4
CMF C41 H26 O7



CM 2

CRN 2676-59-7

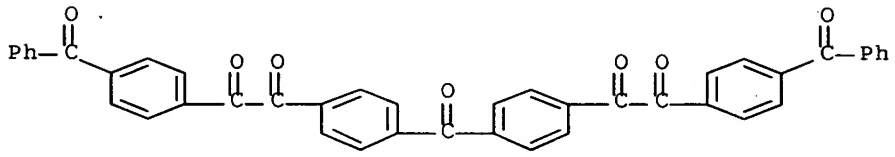
CMF C12 H14 N4 O



RN 188577-29-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

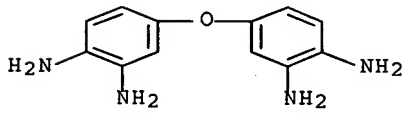
CM 1

CRN 182196-76-5
CMF C43 H26 O7



CM 2

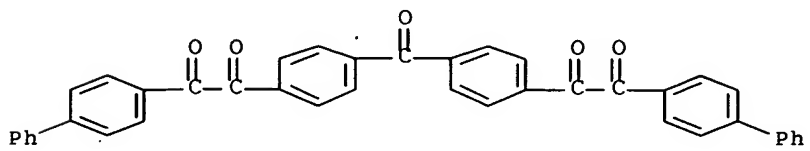
CRN 2676-59-7
CMF C12 H14 N4 O



RN 188577-30-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

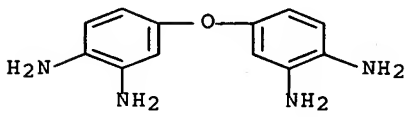
CM 1

CRN 182196-78-7
CMF C41 H26 O5



CM 2

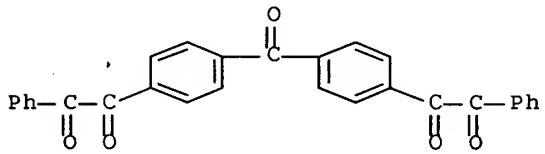
CRN 2676-59-7
CMF C12 H14 N4 O



RN 188577-31-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

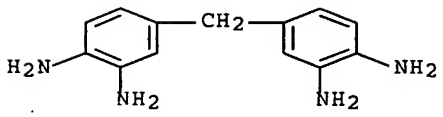
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

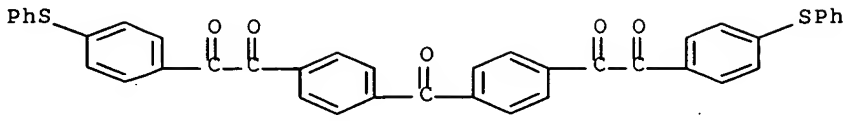
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-32-4 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

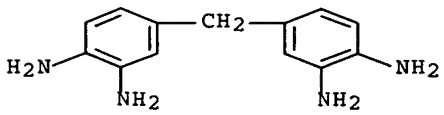
CM 1

CRN 182196-74-3
CMF C41 H26 O5 S2



CM 2

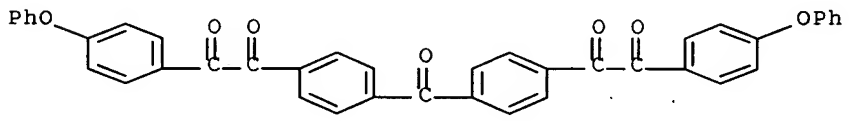
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-33-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

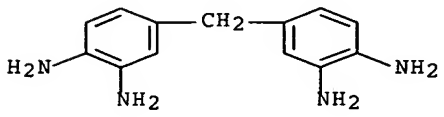
CM 1

CRN 182196-75-4
CMF C41 H26 O7



CM 2

CRN 1779-05-1
CMF C13 H16 N4

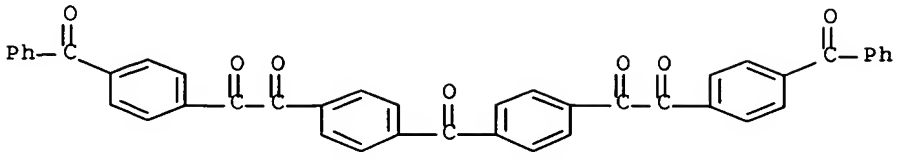


RN 188577-34-6 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

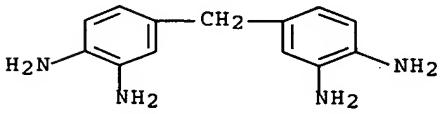
CRN 182196-76-5

CMF C43 H26 O7



CM 2

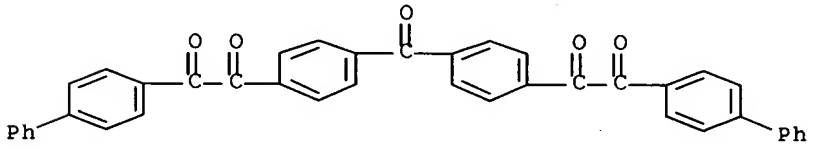
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-35-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

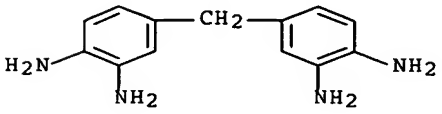
CM 1

CRN 182196-78-7
CMF C41 H26 O5



CM 2

CRN 1779-05-1
CMF C13 H16 N4

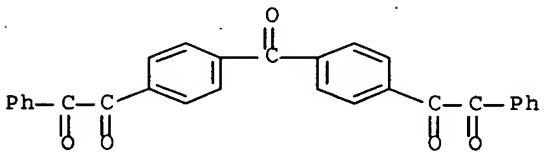


RN 188577-36-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with

4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

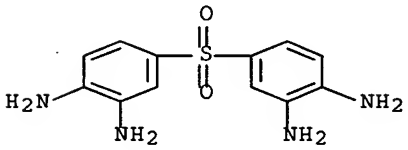
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

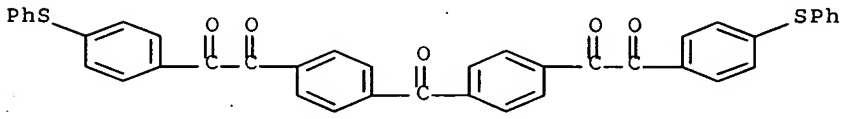
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 188577-37-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

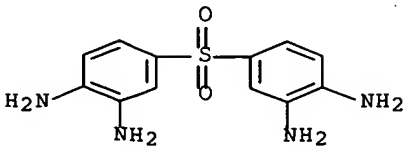
CM 1

CRN 182196-74-3
CMF C41 H26 O5 S2



CM 2

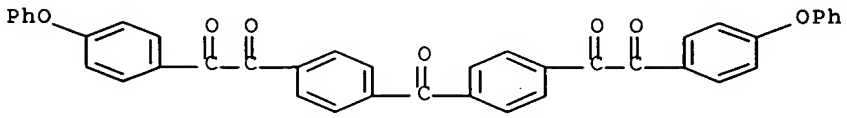
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 188577-38-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

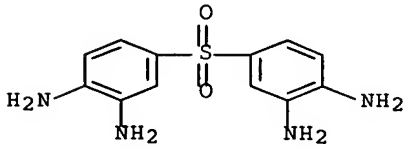
CM 1

CRN 182196-75-4
CMF C41 H26 O7



CM 2

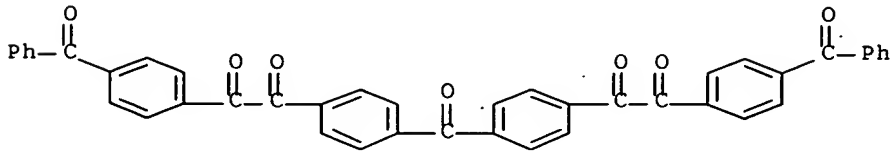
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 188577-39-1 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

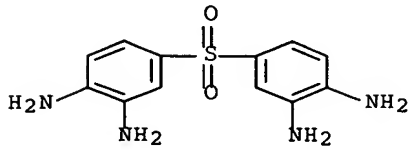
CM 1

CRN 182196-76-5
CMF C43 H26 O7



CM 2

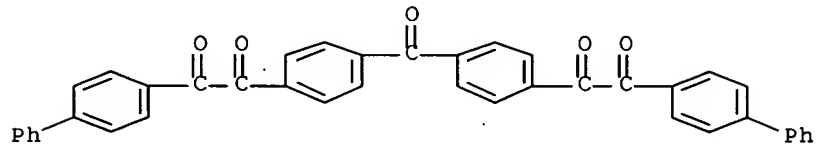
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 188577-40-4 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

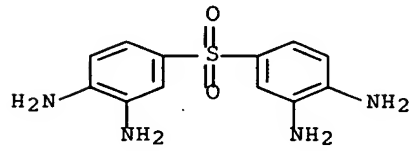
CM 1

CRN 182196-78-7
CMF C41 H26 O5



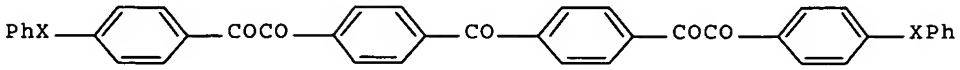
CM 2

CRN 13224-79-8
CMF C12 H14 N4 O2 S



L63 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:400962 HCAPLUS Full-text
DOCUMENT NUMBER: 125:275348
TITLE: Synthesis of new 4,4'-bis(arylethynyl)benzophenones and 4,4'-bis(arylglyoxalyl)benzophenones based on chloral
AUTHOR(S): Keshtov, M. L.; Belomoina, N. M.; Kazieva, T. M.; Rusanova, A. L.; Mikitaev, A. K.
CORPORATE SOURCE: Nesmeyanov, A. N., Institut Elementoorganicheskikh Soedinenii, Moscow, 117813, Russia
SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1996),

(3), 670-672
CODEN: IASKEA
PUBLISHER: Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 125:275348
GI



II

AB 4,4'-Diiodobenzophenone (I) was obtained by a 3-step synthesis from chloral and iodobenzene. Cross-coupling of I with terminal arylethynes using a Pd complex catalyst led to 4,4'-bis(arylethynyl)benzophenones. Oxidation of these products with an I2/DMSO system gave 4,4'- bis(arylglyoxalyl)benzophenones, e.g., II (X = O, S, CO, a bond).

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

ST chloral reaction iodobenzene; benzophenone arylethynyl arylglyoxalyl prepn; coupling diiodobenzophenone arylethyne

IT Oxidation
(of bis(arylethynyl)benzophenones by iodine/DMSO)

IT Coupling reaction
(cross-, of arylethynes with diiodobenzophenones)

IT 3972-13-2P, Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-iodo-
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydrochlorination of)

IT 49674-70-6P 182196-68-5P 182196-69-6P 182196-70-9P 182196-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)

IT **31224-78-9P 182196-74-3P 182196-75-4P 182196-76-5P 182196-78-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

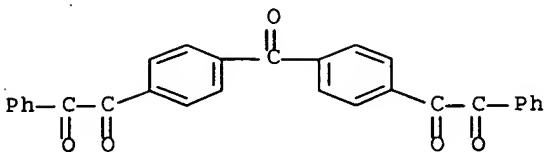
IT 591-50-4, Iodobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with chloral)

IT 75-87-6, Chloral
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with iodobenzene)

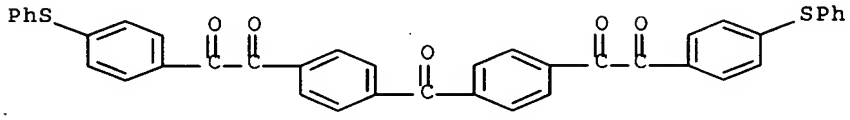
IT **31224-78-9P 182196-74-3P 182196-75-4P 182196-76-5P 182196-78-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 31224-78-9 HCAPLUS

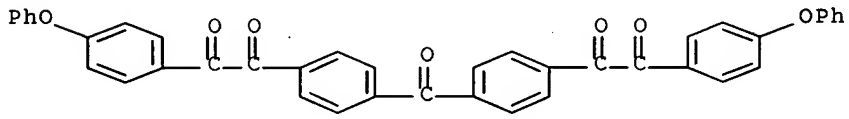
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



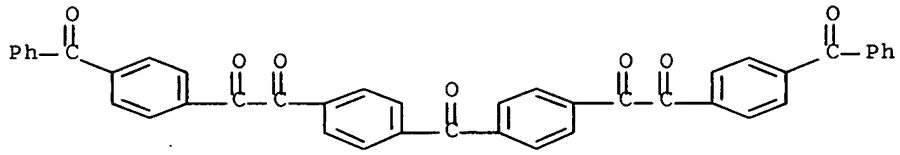
RN 182196-74-3 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-
(CA INDEX NAME)



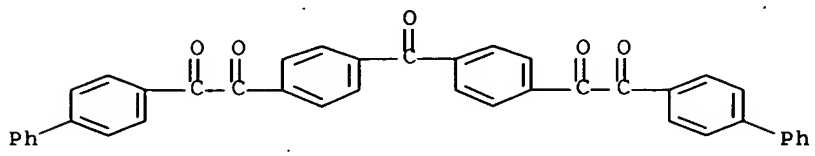
RN 182196-75-4 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)- (9CI)
(CA INDEX NAME)



RN 182196-76-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)- (9CI)
(CA INDEX NAME)



RN 182196-78-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-
(9CI) (CA INDEX NAME)



L63 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:335631 HCAPLUS Full-text
DOCUMENT NUMBER: 125:114254
TITLE: Use of new reagents based on DMSO in oxidation of double and triple bonds and synthesis of 1,2-diketones
AUTHOR(S): Yusubov, M. S.; Chi, Ki Whan; Krasnokutskaya, E. A.; Vasil'eva, V. P.; Filimonov, V. D.
CORPORATE SOURCE: Tomsk. Politekh. Univ., Tomsk, Russia
SOURCE: Zhurnal Organicheskoi Khimii (1995), 31(11), 1675-1678
CODEN: ZORKAE; ISSN: 0514-7492
PUBLISHER: Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 125:114254

AB Diarylethenes and -ethynes were oxidized to diketones by I2-DMSO and PdCl2-DMSO systems. The I2-DMSO system was more active than the PdCl2-DMSO system in the oxidation of double bonds. The PdCl2-DMSO system was more selective in the oxidation of triple bonds but was more sensitive to steric effects in the substrate.

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

ST oxidn diarylethene diarylethyne DMSO system; diarylethene oxidn DMSO iodine palladium dichloride; diarylethyne oxidn DMSO iodine palladium dichloride; DMSO iodine palladium dichloride oxidizing agent; diketone diaryl prepn; iodine DMSO oxidn diarylethene diarylethyne; palladium dichloride DMSO oxidn diarylethene diarylethyne

IT Oxidizing agents
(based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

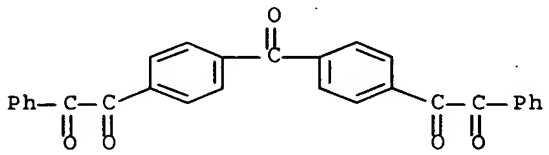
IT Alkenes, reactions
Alkynes
RL: RCT (Reactant); RACT (Reactant or reagent)
(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT Ketones, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(di-, reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT 67-68-5, Dmso, reactions 501-65-5, Tolan 588-59-0, Stilbene 673-32-5, 1-Phenylpropyne 1142-15-0, 4-Methoxystilbene 1820-42-4, Bis(4-chlorophenyl)acetylene 1849-26-9, Phenol, 4-(phenylethynyl)- 1849-27-0, Benzene, 1,4-bis(phenylethynyl)- 1942-30-9, Benzene, 1-nitro-4-(phenylethynyl)- 2132-62-9, Di-p-anisylacetylene 2789-88-0, Di-p-tolylacetylene 3287-02-3, 4-Methyltolan 4714-21-0, 4-Methylstilbene 4714-23-2, 4-Chlorostilbene 5172-02-1, Benzene, 1-chloro-4-(phenylethynyl)- 7380-78-1, Benzene, 1-methoxy-4-(phenylethynyl)- 7553-56-2, Diiodine, reactions 7647-10-1, Palladium dichloride 29778-31-2, Mesitylphenylacetylene 49674-69-3 49674-70-6 53304-20-4 53304-21-5, 1,1'-Biphenyl, 4,4'-bis(phenylethynyl)- 55718-44-0 57341-98-7, Benzaldehyde, 4-(phenylethynyl)- 59745-29-8 162853-61-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT 134-81-6P, Benzil 579-07-7P, 1,2-Propanedione, 1-phenyl- 1226-42-2P, Ethanedione, bis(4-methoxyphenyl)- 2431-00-7P, 4-Methylbenzil 3363-97-1P 3457-46-3P, Ethanedione, bis(4-chlorophenyl)- 3457-48-5P, Ethanedione, bis(4-methylphenyl)- 18189-21-4P 21454-19-3P 22711-21-3P, 4-Methoxybenzil 22711-23-5P, 4-Chlorobenzil 22711-24-6P, 4-Nitrobenzil 25056-07-9P, Ethanedione, phenyl(2,4,6-trimethylphenyl)- 31224-78-9P 38469-73-7P, 4-Hydroxybenzil 47709-64-8P

47732-44-5P 50559-10-9P 162853-60-3P 179049-25-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)
IT 31224-78-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:411184 HCAPLUS Full-text
DOCUMENT NUMBER: 122:290404
TITLE: DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones
AUTHOR(S): Yusubov, Mehman S.; Krasnokutskaya, Elena A.; Vasilyeva, Valentina P.; Filimonov, Victor D.; Chi, Ki-Whan
CORPORATE SOURCE: Dep. Org. Chem., Tomsk Polytech. Univ., Tomsk, 634004, Russia
SOURCE: Bulletin of the Korean Chemical Society (1995), 16(2), 86-8
CODEN: BKCSDE; ISSN: 0253-2964
PUBLISHER: Korean Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:290404
AB I2/DMSO oxidized stilbenes or tolans to 1,2-diketones. Also, PdCl2/DMSO oxidized tolans to 1,2-diketones. Similarly, the heterogeneous catalyst Pd/C/copper(II) halide in DMSO catalyzed oxidation of alkynes to diketones.
CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
ST DMSO reagent oxidn alkene alkyne
IT Oxidation
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)
IT Alkenes, reactions
Alkynes
RL: RCT (Reactant); RACT (Reactant or reagent)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)
IT Oxidation catalysts
(Pd/C/copper(II) halide-catalyzed oxidation of alkenes and alkynes in DMSO)
IT Ketones, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(1,2-di-, DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)
IT 7440-05-3, Palladium, uses 7447-39-4, Cupric chloride, uses 7789-45-9, Cupric bromide

RL: CAT (Catalyst use); USES (Uses)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

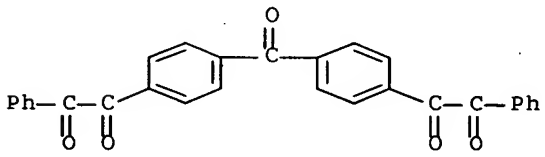
IT 67-68-5, uses 7647-10-1, Palladium chloride (PdCl2)
RL: NUU (Other use, unclassified); USES (Uses)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT 103-30-0, trans-Stilbene 501-65-5, Diphenylacetylene 1657-50-7 1694-19-5 1820-42-4 1849-26-9 1849-27-0, 1,4-Bis(phenylethynyl)benzene 1860-17-9 1942-30-9 2132-62-9, Bis(p-methoxyphenyl)acetylene 2789-88-0, Di-p-tolylacetylene 3287-02-3 5172-02-1 7380-78-1 29778-31-2 49674-69-3 49674-70-6 53304-20-4 53304-21-5 55718-44-0 57341-98-7 59745-29-8 162853-61-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT 134-81-6P, 1,2-Diphenyl-1,2-Ethanedione 1226-42-2P 2431-00-7P 3363-97-1P 3457-46-3P 3457-48-5P 18189-21-4P 21454-19-3P 22711-21-3P 22711-23-5P 22711-24-6P 25056-07-9P **31224-78-9P** 38469-73-7P 47709-64-8P 47732-44-5P 50559-10-9P 162853-60-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT **31224-78-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:39518 HCAPLUS Full-text
DOCUMENT NUMBER: 118:39518
TITLE: Synthesis of poly(phenylquinoxalines) (PPQ) with elevated glass transition temperatures
AUTHOR(S): Belomoina, N. M.; Vakhtangishvili, L. V.; Krongauz, E. S.; Rusanov, A. L.
CORPORATE SOURCE: Inst. Org.-Elem. Compd., Moscow, Russia
SOURCE: Polyimides Other High-Temp. Polym., Proc. Eur. Tech. Symp., 2nd (1991), 143-9. Editor(s): Abadie, Marc J. M.; Sillion, Bernard. Elsevier: Amsterdam, Neth.
CODEN: 57QVAJ
DOCUMENT TYPE: Conference
LANGUAGE: English

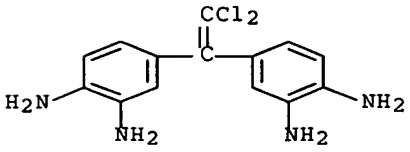
AB 1,1-Dichloro-2,2-bis(3,4-diaminophenyl)ethylene (I) and 2,3-bis(3,4-diaminophenyl)quinoxaline (II) were obtained from DDT. I and II were polycondensed with aromatic bis(α-diketones) to provide poly(phenylquinoxalines) having elevated glass temperature and solubility in organic solvents.

CC 35-5 (Chemistry of Synthetic High Polymers)
ST polyphenylquinoxaline glass temp soly
IT Glass temperature and transition
(of poly(phenylquinoxalines))
IT Polyethers, preparation
Polyketones
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-, preparation and glass temperature and solubility of)
IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-polyketones, preparation and glass temperature and solubility of)
IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, preparation and glass temperature and solubility of)
IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, polyether-, preparation and glass temperature and solubility of)
IT 95-54-5, o-Phenylenediamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with aromatic diketone)
IT 50-29-3, DDT, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(nitration or reduction of)
IT 73046-19-2P 130711-05-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of)
IT 92030-44-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cyclocondensation with phenylenediamine)
IT 50-29-3P, preparation 4399-07-9P 76905-73-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydrochlorination of)
IT 120704-69-0P 120704-70-3P 120704-71-4P 120704-72-5P
120704-73-6P 120704-74-7P 120796-89-6P 120796-90-9P
120796-91-0P 120796-92-1P 120796-93-2P 130341-67-2P 130341-68-3P
130341-86-5P 130390-79-3P 130390-83-9P 130390-84-0P 145394-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and glass temperature and solubility of)
IT 3457-46-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and nitration of)
IT 1820-42-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 120704-68-9P 130341-66-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and polymerization with bis(diketones))
IT 130711-06-7P 134292-37-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reduction of)
IT **120704-73-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and glass temperature and solubility of)
RN 120704-73-6 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-(dichloroethenylidene)bis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

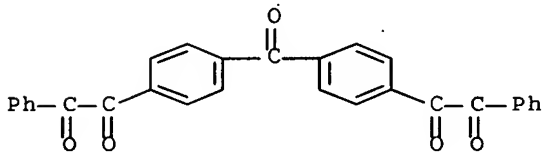
CM 1

CRN 120704-68-9
CMF C14 H14 Cl2 N4



CM 2

CRN 31224-78-9
CMF C29 H18 O5



L63 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:409425 HCAPLUS Full-text
DOCUMENT NUMBER: 117:9425
TITLE: Photopolymerization catalysts for acrylic monomers for manufacture of adhesive tapes
INVENTOR(S): Ueda, Tsunehisa; Nakasu, Yoshiaki
PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04011610	A	19920116	JP 1990-113034	19900427
JP 06102698	B	19941214		

PRIORITY APPLN. INFO.: JP 1990-113034 19900427
AB The title catalysts are HOCR1R2COZCOR3R4OH or [Y(p-C6H4COCR5R6OH)] n, where R1-6 = linear or branched alkyl, R1-R2 or R3-R4 form rings, Z =

(un)substituted aromatic groups or A1TA2, A1A2 = (un)substituted aromatic groups, T = linear or branched alkylene, CO, O, or S, Y = linear or branched alkylene, n = 2-10. Thus, 100 parts 97:3 2-ethylhexyl acrylate-acrylic acid was mixed with 1 part 4,4'-bis(α- hydroxyisobutyryl)benzophenone, and a nylon fabric was impregnated with the composition and irradiated with Hg lamps to prepare a double-stick adhesive tape.

IC ICM C08F020-18
ICS C08F002-50

CC 38-3 (Plastics Fabrication and Uses)

ST ethylhexyl acrylate copolymer adhesive tape; adhesive tape manuf acrylic adhesive; hydroxyisobutyrylbenzophenone photopolymn catalyst

IT Adhesive tapes
(acrylic acid-ethylhexyl acrylate copolymers for, photopolymn. catalysts for)

IT Ketones, uses
RL: USES (Uses)
(hydroxy, aromatic, catalysts, for photopolymn. of acrylic acid and ethylhexyl acrylate)

IT Polymerization catalysts
(photochem., aromatic hydroxyketones, for acrylic monomers)

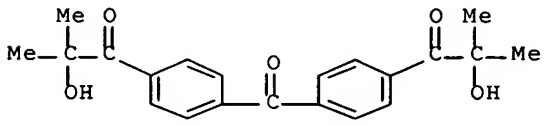
IT 25134-51-4, Acrylic acid-2-ethylhexyl acrylate copolymer 123867-27-6, Acrylic acid-2-ethylhexyl acrylate-hexanediol diacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, for adhesive tapes, photopolymn. catalysts for)

IT **80067-87-4**, 4,4'-Bis(α-hydroxyisobutyryl)benzophenone
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for photopolymn. of acrylic acid and ethylhexyl acrylate)

IT **80067-87-4**, 4,4'-Bis(α-hydroxyisobutyryl)benzophenone
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for photopolymn. of acrylic acid and ethylhexyl acrylate)

RN 80067-87-4 HCAPLUS

CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



L63 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:213507 HCAPLUS Full-text

DOCUMENT NUMBER: 110:213507

TITLE: Synthesis and properties of chlorine-containing poly(phenylquinoxalines)

AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Rusanov, A. L.; Belomoina, N. M.; Vakhtangishvili, L. V.; Slonimskii, G. L.; Askadskii, A. A.; Bychko, K. A.; Kazantseva, V. V.; Fidler, S. Kh.

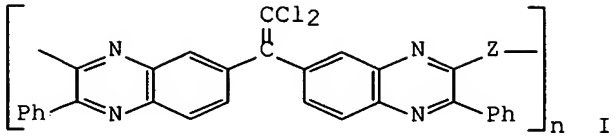
CORPORATE SOURCE: Inst. Elementoorg. Soedin. im. Nesmeyanova, Moscow, USSR

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1989), 31(1), 80-5
CODEN: VYSAAF; ISSN: 0507-5475

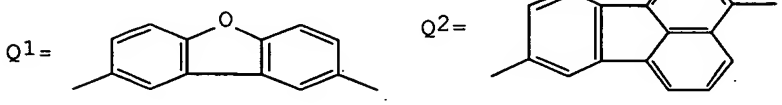
DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI



I



AB Tetraamine derivs. of DDT, which has lost its importance as an insecticide, was used for polycondensation with bis(α-diketones) to give polyphenylquinoxalines (I; Z = p-C6H4, p-C6H4OC6H4-p, p-C6H4C6H4-p, p-C6H4COC6H4-p, Q1, Q2). The polymers had softening temperature ≥280° and good solubility in organic solvents, giving films with tensile strength 61.5-84.0 MPa and breaking elongation 7-50%. During TGA testing in air, the initial 10% weight loss for the polymers occurred at 500°. The presence of the C:CCl2 group caused some decrease in thermal stability and also resulted in a certain degree of crosslinking during molding at high temps.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST polyphenylquinoxaline prepn DDT tetraamine; aminodiphenylethylidene chloride polymn bisdiketone; chloroethenylidenebischlorobenzene polymn bisdiketone

IT Crosslinking
(in thermal processing of dichloroethenylidene group-containing polyphenylquinoxalines)

IT Polyethers, preparation
Polyketones
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-, chlorine-containing, preparation of, from tetraamine
derivs. of DDT, properties in relation to)

IT Polymers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, chlorine-containing, preparation of, from tetraamine
derivs. of DDT, properties in relation to)

IT 120704-69-0P 120704-70-3P 120704-71-4P 120704-72-5P
120704-73-6P 120704-74-7P 120796-89-6P 120796-90-9P
120796-91-0P 120796-92-1P 120796-93-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

IT **120704-73-6P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

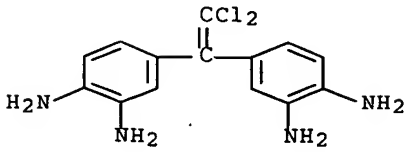
RN 120704-73-6 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-(dichloroethenylidene)bis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

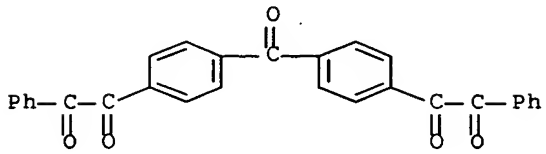
CRN 120704-68-9

CMF C14 H14 Cl2 N4



CM 2

CRN 31224-78-9
CMF C29 H18 O5



L63 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:497982 HCAPLUS Full-text
DOCUMENT NUMBER: 105:97982
ORIGINAL REFERENCE NO.: 105:15863a,15866a
TITLE: Enthalpy of polycondensation of 3,3',4,4'-tetraaminodiphenyl oxide with some aromatic tetraketones
AUTHOR(S): Karyakin, N. V.; Vagina, E. N.; Korshak, V. V.; Krongauz, E. S.; Belomoina, N. M.; Babich, S. A.
CORPORATE SOURCE: Gor'k. Gos. Univ., Gorkiy, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1986), 28(3), 203-5
CODEN: VYSBAI; ISSN: 0507-5483
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The polycondensation of 3,3',4,4'-tetraaminodiphenyl oxide [2676-59-7] with PhCOCOZCOCOPh (I; Z = p-C6H4, p-C6H4C6H4-p, p-C6H4OC6H4-p, p-C6H4COC6H4-p, dibenzofurandiyl) occurred with standard enthalpy of polymerization (ΔH) -164 to -204 kJ/mol in solution and -52 to -102 kJ/mol in solid phase. Structural factors increasing the pos. charge on the carbonyl C of I led to decreased ΔH. The formation of polyphenylquinoxalines was practically irreversible and polymers with high d.p. were obtained. Solution enthalpies were pos. for I and neg. for the polymers.

CC 35-3 (Chemistry of Synthetic High Polymers)
ST tetramine polymn tetraketone enthalpy; aminodiphenyl oxide polymn tetraketone; polyphenylquinoxaline prepn polymn heat; quinoxaline polymer prepn polymn heat; soln heat tetraketone polyphenylquinoxaline
IT Heat of solution
(of poly(phenylquinoxalines) and their aromatic tetraketones)
IT Heat of polymerization
(of tetraaminodiphenyl oxide with aromatic tetraketones)
IT 91-19-0D, derivs., polymers 25656-52-4 27322-90-3 30527-17-4

72383-21-2
RL: PRP (Properties)
(heat of solution of)

IT 2676-59-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with aromatic tetraketones, enthalpy of)

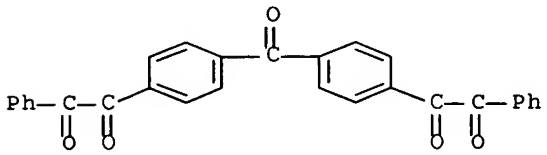
IT 3363-97-1 21454-19-3 **31224-78-9** 47709-64-8 60486-35-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with tetraaminodiphenyl oxide, heat of solution and polycondensation in relation to)

IT **72383-21-2**
RL: PRP (Properties)
(heat of solution of)

RN 72383-21-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

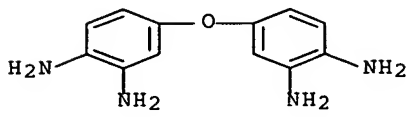
CM 1

CRN 31224-78-9
CMF C29 H18 O5



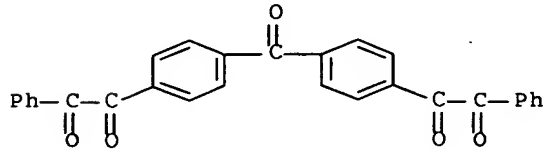
CM 2

CRN 2676-59-7
CMF C12 H14 N4 O



IT **31224-78-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with tetraaminodiphenyl oxide, heat of solution and polycondensation in relation to)

RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



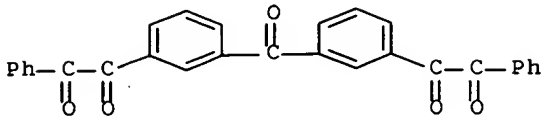
L63 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:516319 HCAPLUS Full-text
DOCUMENT NUMBER: 95:116319
ORIGINAL REFERENCE NO.: 95:19543a,19546a
TITLE: Antifriction properties and wear resistance of plastics made of crosslinked poly(phenylquinoxalines)
AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krasnov, A. P.; Mamatsashvili, G. V.; Krongauz, E. S.; Travnikova, A. P.; Belomoina, N. M.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Trenie i Iznos (1981), 2(3), 540-4
CODEN: TRIZD6; ISSN: 0202-4977
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The degree of crosslinking effect the thermofrictional properties and wear resistance of self-lubricating antifriction materials based on graphite [7782-42-5]-filled poly(phenylquinoxalines) containing reactive CO groups. 4,4'-Oxydi-o-phenylenediamine-1,1'-p-phenylenebis(2-phenyl-1,2- ethanedione)-3,3''-carbonyldibenzil copolymer (I) [66179-35-9] forming crosslinked structures and poly[(2-phenylquinoxaline-3,6- diyl)oxy(2-phenylquinoxaline-6,3-diyl)-p-phenylene] (II) [37196-91-1] as linear polymer were examined The friction coefficient of I was higher than of II which did not contain crosslinked CO groups. The improvement in wear resistance and stability of the friction coefficient with increasing temperature depended on the amount of crosslinked I which in turn could be controlled by processing conditions. The formation of crosslinks due to friction decreased the wear resistance and stability of the friction coeff of I.

CC 36-5 (Plastics Manufacture and Processing)
ST friction polyphenylquinoxaline crosslinking; wear resistance polyphenylquinoxaline crosslinking
IT Crosslinking
(degree of, of poly(phenylquinoxalines), antifriction and wear properties in relation to)
IT Antifriction materials
(poly(phenylquinoxalines), wear resistance and friction coefficient of, effect of crosslinking degree on)
IT 25656-52-4 37196-91-1
RL: PRP (Properties)
(antifriction properties and wear resistance of)
IT **66179-35-9**
RL: PRP (Properties)
(antifriction properties and wear resistance of, crosslinking degree in relation to)
IT 7782-42-5, uses and miscellaneous
RL: USES (Uses)
(poly(phenylquinoxalines) filled with, antifriction properties and wear of)
IT **66179-35-9**
RL: PRP (Properties)
(antifriction properties and wear resistance of, crosslinking degree in relation to)
RN 66179-35-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] and 1,1'-(1,4-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

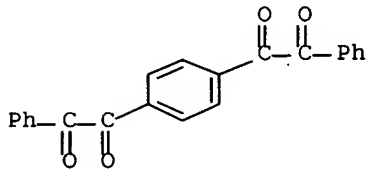
CM 1

CRN 53302-48-0
CMF C29 H18 O5



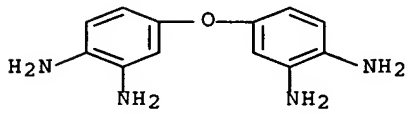
CM 2

CRN 3363-97-1
CMF C22 H14 O4



CM 3

CRN 2676-59-7
CMF C12 H14 N4 O



L63 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:31469 HCAPLUS Full-text
DOCUMENT NUMBER: 94:31469
ORIGINAL REFERENCE NO.: 94:5197a,5200a
TITLE: Properties of poly(phenylquinoxaline) crosslinked copolymers
AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krongauz, E. S.; Krasnov, A. P.; Travnikova, A. P.; Mamatsashvili, G. V.; Belomoina, N. M.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1980), 22(8), 627-30
CODEN: VYSBAI; ISSN: 0507-5483
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The crosslinking degree and thermomech. properties of poly(phenylquinoxalines) based on 3,3',4,4'-tetraminodiphenyl ether and bis-α-diketones can be controlled by changes in the CO group content in the polymer mol. and processing temperature 1,4-Bis(phenylglyoxylyl)benzene- 3,3'-bis(phenylglyoxylyl)benzophenone-3,3',4,4'-tetraaminodiphenyl ether copolymer (I) [66179-35-9] with various ratios of the 2 bis-α-diketones at a stoichiometric tetraamine-tetraketone ratio was examined The softening temperature of I decreased on increasing the benzophenone-based tetraketone content of the copolymer. An increase in the CO group content of I to 40-5% decreased the impact resistance and increased the rigidity. The crosslink d. increased with increasing CO group content of I and with increasing processing temperature

CC 36-6 (Plastics Manufacture and Processing)

ST deformation polyphenylquinoxaline crosslinking; impact strength polyphenylquinoxaline crosslinking; thermomech property polyphenylquinoxaline crosslinking

IT Crosslinking
(of poly(phenylquinoxalines), temperature effect on, thermomech. properties in relation to)

IT 91-19-0D, derivs., polymers **66179-35-9**
RL: USES (Uses)
(thermomech. properties of crosslinked, structure and processing temperature
in relation to)

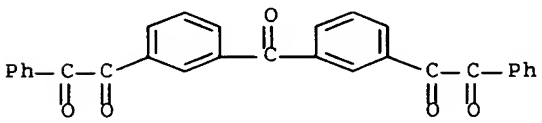
IT **66179-35-9**
RL: USES (Uses)
(thermomech. properties of crosslinked, structure and processing temperature
in relation to)

RN 66179-35-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] and 1,1'-(1,4-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

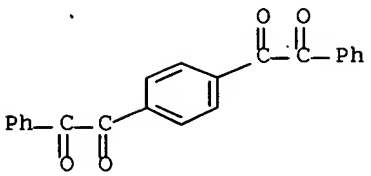
CM 1

CRN 53302-48-0
CMF C29 H18 O5



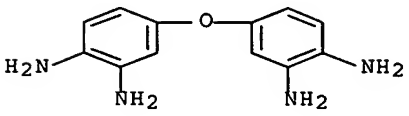
CM 2

CRN 3363-97-1
CMF C22 H14 O4

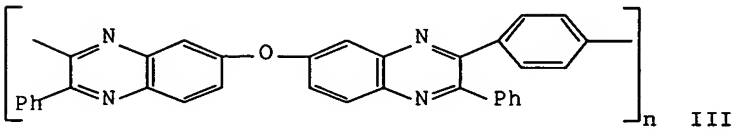


CM 3

CRN 2676-59-7
CMF C12 H14 N4 O



L63 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:640009 HCAPLUS Full-text
DOCUMENT NUMBER: 93:240009
ORIGINAL REFERENCE NO.: 93:38477a,38480a
TITLE: Kinetics and mechanism of poly(phenylquinoxalines) formation
AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Travnikova, A. P.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1980), 22(7), 1450-7
CODEN: VYSAAF; ISSN: 0507-5475
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



III

AB The mechanism of the formation of poly(phenylquinoxalines) was established by studying polymerization kinetics of 3,3',4,4'-tetraaminodiphenyl ether (I) [2676-59-7] with (PhCOCO)2C6H4-p (II) [3363-97-1] in CHCl3 in the presence of various quantities of H donors (BzOH [65-85-0], AcOH [64-19-7], MeOH [67-56-1], and m-cresol [108-39-4]) and the mol. weight and structure of the resulting polymer III [25656-52-4]. H donors reacted with the amino groups of I and the keto groups of II, converting them into conjugate acids and strong electrophilic cations, resp. The latter reacted with neutral I via

coordination with unshared electron pairs on N. A 1:2 I-m-cresol complex [75763-57-4] (m.p. 105-7°) was isolated. The suggested polymerization mechanism accounted for the linearity of III and the absence of defects in III chains, as well as the absence of chelation and impossibility of conducting the polymerization stepwise.

CC 35-4 (Synthetic High Polymers)

ST polyphenylquinoxaline formation mechanism; quninoxaline polymer formation mechanism; phenylglyoxyloylbenzene tetraaminodiphenyl ether polymn kinetics; aminodiphenyl ether bisphenylglyoxyloylbenzene polymn kinetics; kinetics polymn bisphenylglyoxyloylbenzene tetraaminodiphenyl ether; amine glyoxal deriv polymn

IT Bond order
Electron configuration
(of aromatic diketones, HMO calcn. of)

IT Kinetics of polymerization
(of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether, in presence of hydrogen donors)

IT Ring closure and formation
(polymerization and, of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether)

IT Polymerization
(cyclo-, of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether, in presence of hydrogen donors, mechanism of)

IT Ketones, properties
(di-, aromatic, electron densities and bond orders of, HMO calcn. of)

IT 64-19-7, uses and miscellaneous 65-85-0, uses and miscellaneous 67-56-1, uses and miscellaneous 108-39-4, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether, kinetics and mechanism in presence of)

IT **31224-78-9** 47709-64-8 62081-29-2 63145-66-4
RL: USES (Uses)
(electron densities and bond orders of, HMO calcn. of)

IT 25656-52-4 37196-91-1
RL: USES (Uses)
(mol. weight and structure of)

IT 2676-59-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with bis(phenylglyoxyloyl)benzene, in presence of hydrogen donors, kinetics and mechanism of)

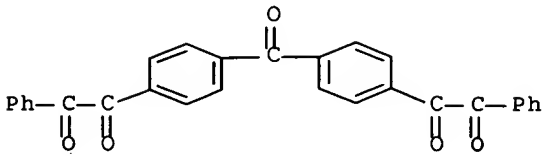
IT 3363-97-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with tetraaminodiphenyl ether, in presence of hydrogen donors, kinetics and mechanism of)

IT 75763-57-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

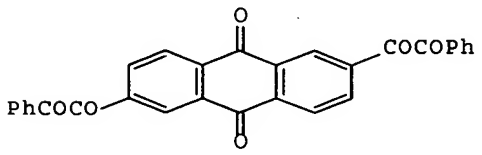
IT **31224-78-9**
RL: USES (Uses)
(electron densities and bond orders of, HMO calcn. of)

RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:445408 HCAPLUS Full-text
DOCUMENT NUMBER: 93:45408
ORIGINAL REFERENCE NO.: 93:7483a,7486a
TITLE: Additivity of the C = O band integral intensities in the infrared spectra of aromatic bis-α-diketones and polyketones
AUTHOR(S): Valtere, S.; Neilands, O.
CORPORATE SOURCE: Rizh. Politekh. Inst., Riga, USSR
SOURCE: Latvijas PSR Zinatnu Akademijas Vestis, Kimijas Serija (1980), (1), 85-8
CODEN: LZAKAM; ISSN: 0002-3248
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI

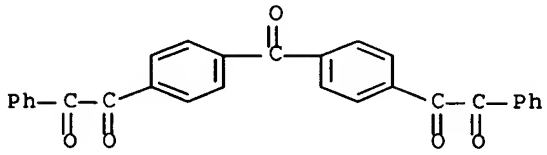


I

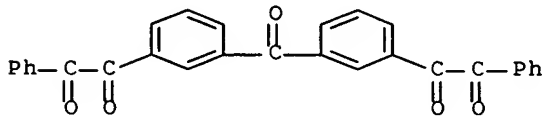
AB Carbonyl frequencies and integrated intensities (A) were determined for 18 mols. containing 2-6 C:O groups, e.g., p-(PhCOCO)C6H4, benzil and I. Splitting of the C:O absorption band resulted from different polarities of the adjacent C:O groups. The number of C:O groups in this type of mol. can be calculated as 0.5A.

CC 22-2 (Physical Organic Chemistry)
ST IR ketone additive intensity; polyketone IR additivity
IT Carbonyl group
(determination of number of, in aromatic polyketones, from IR intensity)
IT Infrared spectra
(of di- and polyketones, additivity of intensity in)
IT Ketones, properties
RL: PRP (Properties)
(poly-, IR spectra of, additivity of intensity in)
IT 134-81-6 3363-87-9 3363-97-1 21454-19-3 29673-72-1
31224-78-9 47732-51-4 51930-25-7 **53302-48-0**
54520-09-1 62913-22-8 74291-11-5 74291-12-6 74291-13-7
74291-14-8 74291-15-9 74291-16-0 74291-17-1
RL: PRP (Properties)
(IR frequency and intensity of carbonyl group in)
IT **31224-78-9** **53302-48-0**
RL: PRP (Properties)

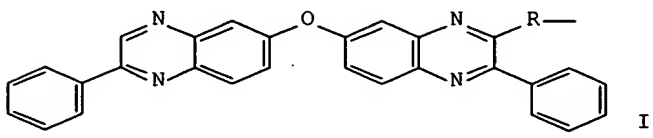
(IR frequency and intensity of carbonyl group in)
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



RN 53302-48-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl- (9CI) (CA INDEX NAME)



L63 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:42703 HCAPLUS Full-text
DOCUMENT NUMBER: 92:42703
ORIGINAL REFERENCE NO.: 92:7131a,7134a
TITLE: Effect of thermodynamic chain flexibility of poly(phenylquinoxalines) on their thermal frictional properties
AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krasnov, A. P.; Mamatsashvili, G. V.; Pavlova, S. A.; Timofeeva, G. I.; Ronova, I. A.; Kroyan, S. A.; Krongauz, E. S.; et al.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1979), 21(10), 2214-20
CODEN: VYSAAF; ISSN: 0507-5475
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



I

AB The decrease of the Kuhn segment (A) length in poly(phenylquinoxalines) [I, R is p-phenylene, p,p'-biphenylylene, p,p'-diphenylene oxide, p,p'-diphenylene ketone, m,m'-diphenylene ketone, or N,N'-bis(p-phenylene)- 1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-diimido] not only increased their chain flexibility, but also decreased their softening temperature (Ts) and friction

coefficient (μ) against steel. The filling of I with <60% graphite reduced μ to ≤0.33. Thus 3,3',4,4'-tetraaminodiphenyl oxide-4,4'-bis(phenyldicarbonyl)diphenyl ether copolymer (I, R = p,p'-diphenylene oxide) [27322-90-3] with or without graphite had μ 0.18 or 0.63 resp., its Ts was 210-20°, and its A was 30 Å. For comparison 3,3',4,4'-tetraaminodiphenyl oxide-N,N'-bis(4- phenyldicarbonylphenyl)-1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-diimide copolymer [I, R is N,N'-bis(p-phenylene)-1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-diimide] [65684-19-7] with or without graphite had μ 0.33 or 0.82 resp., Ts = 370-80°, and A = 71 Å.

CC 36-5 (Plastics Manufacture and Processing)

ST polyphenylquinoxaline chain flexibility; friction coeff structure polyphenylquinoxaline; softening temp structure polyphenylquinoxaline

IT Friction
(coefficient of, of poly(phenylquinoxaline), chain flexibility in relation to)

IT Chains, chemical
(of poly(phenylquinoxalines), flexibility of, friction coefficient and softening temperature in relation to)

IT 25656-52-4 27322-90-3 30527-17-4 37196-91-1 37196-95-5 39411-10-4 **53302-51-5** 53414-91-8 65506-65-2 65684-19-7 **72383-21-2** 72412-83-0
RL: USES (Uses)
(chain flexibility of, friction coefficient and softening temperature in relation to)

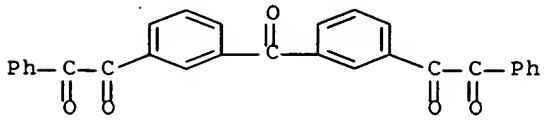
IT **53302-51-5 72383-21-2**
RL: USES (Uses)
(chain flexibility of, friction coefficient and softening temperature in relation to)

RN 53302-51-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

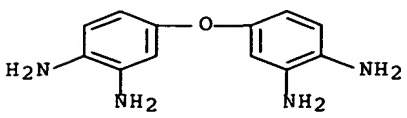
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

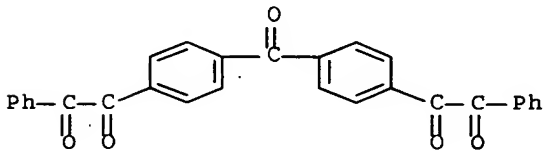
CRN 2676-59-7
CMF C12 H14 N4 O



RN 72383-21-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

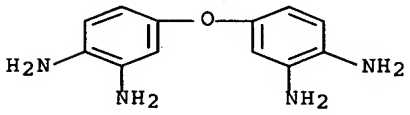
CM 1

CRN 31224-78-9
CMF C29 H18 O5



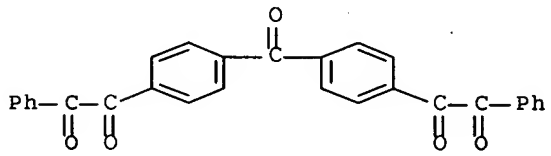
CM 2

CRN 2676-59-7
CMF C12 H14 N4 O

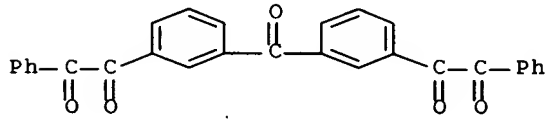


L63 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:169725 HCAPLUS Full-text
DOCUMENT NUMBER: 88:169725
ORIGINAL REFERENCE NO.: 88:26739a,26742a
TITLE: Synthesis and reactions of bisethynyl compounds
AUTHOR(S): Kofman, N. M.; Krongauz, E. S.; Berlin, A. M.; Novikov, A. N.; Merkushev, E. B.
CORPORATE SOURCE: USSR
SOURCE: Tezisy Dokl. - Vses. Konf. Khim. Atsetilena, 5th (1975), 90-1. "Metsniereba": Tiflis, USSR.
CODEN: 37NAAL
DOCUMENT TYPE: Conference
LANGUAGE: Russian
AB ZI2 [Z = p-C6H4, p-C6H4C6H4-p, (p-C6H4)2O, (m- and p-C6H4)2CO, 3,6-dibenzofurandiyl, 2,7-fluorenediyl, 2,7-phenanthrenediyl] reacted with PhC.tplbond.CCu to give the corresponding (PhC.tplbond.C)2Z, which were oxidized with KMnO4 to give 50-93% (PhCOCO)2Z.
CC 25-16 (Noncondensed Aromatic Compounds)
ST ketone bisdi arom; alkyne di arom prepn oxidn; oxidn arom dialkyne
IT Ketones, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(bis-α-di-, preparation of, by permanganate oxidation of aromatic dialkynes)
IT Ethynylation

(phenyl-, of diiodoarom. compds.)
IT 624-38-4 3001-15-8 5630-56-8 5943-11-3 16218-30-7 25186-99-6 28896-49-3 62325-31-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(ethynylation of, with copper phenylacetylide)
IT 13146-23-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(phenylethynylation of diiodoarom. compds. with)
IT 1849-27-0P 49674-70-6P 53304-20-4P 53304-21-5P 53304-22-6P 55718-45-1P 59745-29-8P 66397-23-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 3363-97-1P 21454-19-3P **31224-78-9P** 47709-64-8P 50559-10-9P **53302-48-0P** 60486-35-3P 66397-22-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT **31224-78-9P 53302-48-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



RN 53302-48-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl- (9CI) (CA INDEX NAME)



L63 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:153443 HCAPLUS Full-text
DOCUMENT NUMBER: 88:153443
ORIGINAL REFERENCE NO.: 88:24193a,24196a
TITLE: Poly(phenylquinoxalines) of crosslinked structure
AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krongauz, E. S.; Krasnov, A. P.; Mamatsashvili, G. V.; Komarova, L. I.
CORPORATE SOURCE: USSR
SOURCE: Plasticheskie Massy (1978), (2), 9-12
CODEN: PLMSAI; ISSN: 0554-2901
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Crosslinked poly(phenylquinoxalines) are prepared by reacting 1,4-bis(phenylglyoxalyl)benzene-4,4'-oxydi-O-phenylenediamine copolymer [25656-52-

4] and 1,4-bis(phenylglyoxadyl)benzene-3,3'- bis(phenylglyoxalyl)benzophenone-4,4'-oxydi-o-phenylenediamine copolymer [66179-35-9] with terephthalaldehyde (I) [623-27-8] or benzidine [92-87-5]. This leads to an increase in the number of crosslinks without cyclization during the processing of the polymers at high temps. The crosslinking can occur by 3 mechanisms: reaction of terminal amino groups of the polymer with carbonyl groups of the crosslinking agent (in the case of I), interchain interaction of terminal amino groups of the polymer with carbonyl groups in the macro chain, or interaction of carbonyl groups in the chain with amine groups of the crosslinking agent (in the case of II). Crosslinked products having the desired properties can be obtained by varying the chemical structure of the copolymer and by proper selection of the crosslinking agent.

CC 36-6 (Plastics Manufacture and Processing)

ST polyphenylquinoxalene physicomech property crosslinking; terephthalaldehyde crosslinking polyquinoxalene structure; benzidine crosslinking polyquinoxalene structure; quinoxalene polymer crosslinking mechanism

IT Crosslinking agents
(dialdehyde and diamine compound, for poly(phenylquinoxalines), physicomech. properties in relation to)

IT Crosslinking
(of poly(phenylquinoxalenes), with terephthalaldehyde and benzedene, mechanism of)

IT 92-87-5
RL: USES (Uses)
(crosslinking of poly(phenylquinoxalene) with, mechanism of)

IT 623-27-8
RL: USES (Uses)
(crosslinking of poly(phenylquinoxalene) with, mechanism of)

IT 91-19-0D, derivs., polymers
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, with dialdehydes and diamines, mechanism of)

IT 25656-52-4 37196-91-1 66179-35-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, with terephthalaldehyde and benzidine, physicomech. properties in relation to)

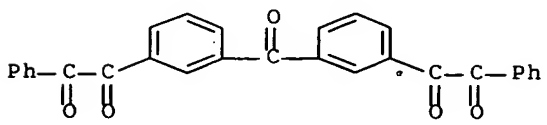
IT 66179-35-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, with terephthalaldehyde and benzidine, physicomech. properties in relation to)

RN 66179-35-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] and 1,1'-(1,4-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

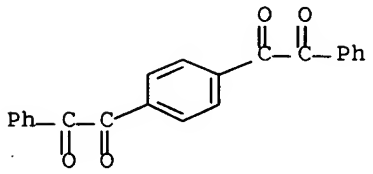
CM 1

CRN 53302-48-0
CMF C29 H18 O5



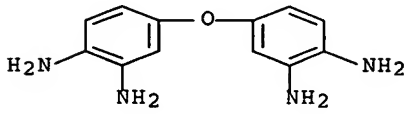
CM 2

CRN 3363-97-1
CMF C22 H14 O4

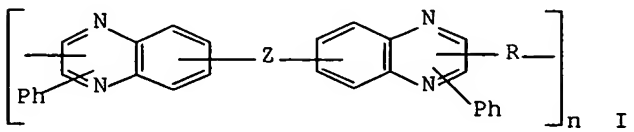


CM 3

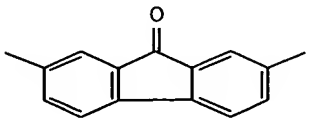
CRN 2676-59-7
CMF C12 H14 N4 O



L63 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:424031 HCAPLUS Full-text
DOCUMENT NUMBER: 87:24031
ORIGINAL REFERENCE NO.: 87:3826h,3827a
TITLE: Properties of poly(phenylquinoxaline) films
AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Berlin, A. M.; Kofman, N. M.; Gerashchenko, Z. V.; Sidorova, V. P.; Blinov, V. F.
CORPORATE SOURCE: USSR
SOURCE: Plasticheskie Massy (1977), (4), 30-2
CODEN: PLMSAI; ISSN: 0554-2901
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



I



II

AB The thermal stability of 7 poly(phenylquinoxalines) [I, Z = O, SO2, or a single bond, R = p-C6H4, m-C6H4COC6H4-m, or fluorenone group (II)] is superior to other polyheteroarylenes and mech. and dielec. properties of I are comparable to those of polyimides. The tensile strength and elongation at break varied from 850 to 1280 kg/cm2 and from 17 to 159%, resp., depending on the chemical structure of the polymer. The mech. properties of I were relatively high on 6-12 h heating in air at 450°. The mech. strength of I (Z = O, R = p-C6H4) decreased the fastest during heating in air at 250°. The change in weight of I began at 450°, and the region of intense degradation in air was >500°.

CC 36-5 (Plastics Manufacture and Processing)

ST polyphenylquinoxaline property thermal aging; heat resistance polyphenylquinoxaline; mech property polyphenylquinoxaline aging

IT Polymer degradation
(oxidative thermal, of poly(phenylquinoxaline) films, polymer structure effect on)

IT 25656-52-4 29186-78-5 37196-91-1 53302-47-9 **53302-49-1** **53302-51-5** 53302-52-6 **53302-53-7** 53414-90-7 53414-91-8 53414-92-9 53414-93-0 53414-95-2 62602-41-9
RL: PRP (Properties)
(oxidative thermal degradation of)

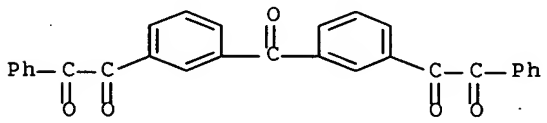
IT **53302-49-1** **53302-51-5** **53302-53-7**
RL: PRP (Properties)
(oxidative thermal degradation of)

RN 53302-49-1 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

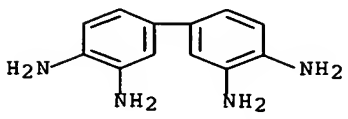
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

CRN 91-95-2
CMF C12 H14 N4

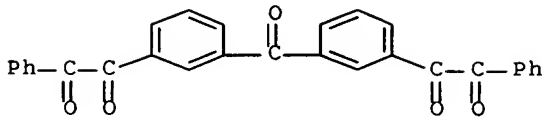


RN 53302-51-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

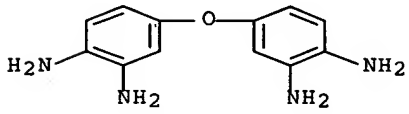
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

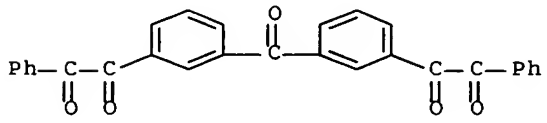
CRN 2676-59-7
CMF C12 H14 N4 O



RN 53302-53-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

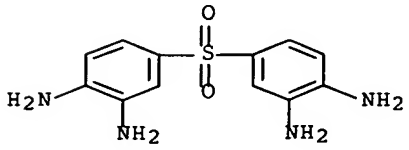
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

CRN 13224-79-8
CMF C12 H14 N4 O2 S



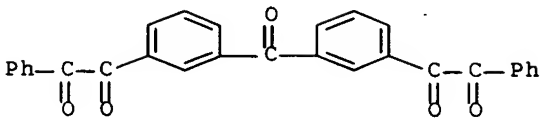
L63 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1975:17169 HCAPLUS Full-text
DOCUMENT NUMBER: 82:17169
ORIGINAL REFERENCE NO.: 82:2763a,2766a
TITLE: Poly(phenylquinoxalines) with increased heat resistance
AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Berlin, A. M.; Kofman, N. M.; Novikov, A. N.; Moskal'chuk, A. N.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1974), 16(7), 509-11
CODEN: VYSBAI; ISSN: 0507-5483
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Thermal stability of poly(phenylquinoxalines) was increased by introducing into the bis(α-diketone) mols. a large number of phenylene or polycondensed cyclic groups and reactive groups, which were readily crosslinked. 2,7-Bis(phenylethynyl)fluorenone [53304-20-4], 4,4'-bis(phenylethynyl)biphenyl [53304-21-5] and 3,3'- bis(phenylethynyl)benzophenone [53304-22-6] were synthesized from Cu phenylacetylenide and corresponding diiodide, and used for preparation of 2,7-bis(phenylglyoxyloyl)fluorenone (I) [50559-10-9], 4,4'-bis(phenylglyoxyloyl)biphenyl (II) [47709-64-8] and 3,3'-bis(phenylglyoxyloyl)benzophenone (III) [53302-48-0], resp. I, II and III gave on reaction with aromatic tetraamine corresponding heat-resistant polymers, which formed films with ultimate strength and elongation at break 900-1100 kg/cm2 and 10-12%, resp.

CC 35-3 (Synthetic High Polymers)
ST heat resistance polyphenylquinoxaline; biphenyl phenylglyoxyloyl polymer; benzophenone phenylglyoxyloyl polymer; fluorenone phenylglyoxyloyl polymer; quinoxaline deriv polymer
IT Heat-resistant materials
(quinoxaline derivative polymers in relation to)
IT 30527-15-2P 30527-17-4P 39411-10-4P 51243-54-0P 53302-47-9P
53302-49-1P 53302-50-4P **53302-51-5P** 53302-52-6P
53302-53-7P 53414-90-7P 53414-91-8P 53414-92-9P
53414-93-0P 53414-94-1P 53414-95-2P 53414-96-3P 73935-40-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability of)
IT 47709-64-8P 50559-10-9P **53302-48-0P** 53304-20-4P
53304-21-5P 53304-22-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT **53302-49-1P 53302-51-5P 53302-53-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability of)
RN 53302-49-1 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

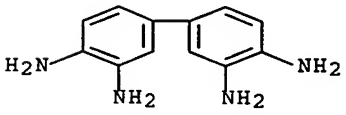
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

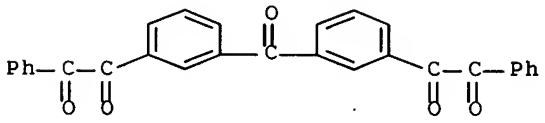
CRN 91-95-2
CMF C12 H14 N4



RN 53302-51-5 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

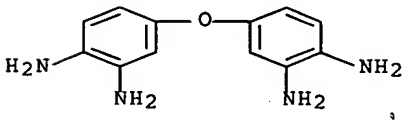
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

CRN 2676-59-7
CMF C12 H14 N4 O

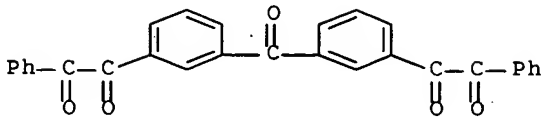


RN 53302-53-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

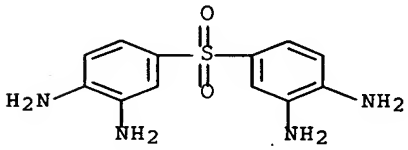
CRN 53302-48-0

CMF C29 H18 O5

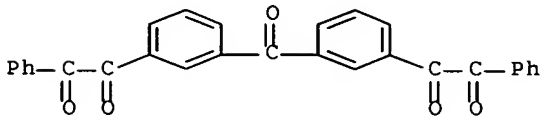


CM 2

CRN 13224-79-8
CMF C12 H14 N4 O2 S



IT **53302-48-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53302-48-0 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl- (9CI) (CA INDEX NAME)



L63 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1974:404433 HCAPLUS Full-text
DOCUMENT NUMBER: 81:4433
ORIGINAL REFERENCE NO.: 81:731a,734a
TITLE: Poly-as-triazines
INVENTOR(S): Hergenrother, Paul M.
PATENT ASSIGNEE(S): Boeing Co.
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3778412	A	19731211	US 1972-287407	19720908
US 3852243	A	19741203	US 1973-381913	19730723

PRIORITY APPLN. INFO.: US 1969-846576 A2 19690731
US 1971-139884 A2 19710503
GB 1972-38828 A 19720821
US 1972-287407 A2 19720908

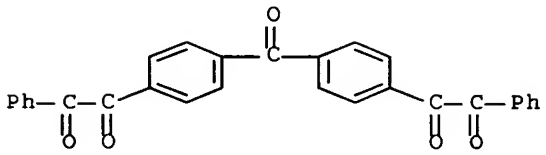
AB Poly-as-triazines, useful as heat-stable adhesives, laminating resins, and films, were prepared by treating a dihydrazidine with a bis-1,2-dicarbonyl compound The polymers could also contain quinoxaline groups. Thus, a mixture of 20 ml hydrazine hydrate [7803-57-8] and 2.8 g 2,6-dicyanopyridine [2893-33-6] in 250 ml EtOH was heated 2 hr at 45-50.deg. to form 3 g 2,6-pyridinediyl dihydrazidine [22538-57-4], which was treated (1.93g) with 4.46g p,p'-carbonyldibenzil [**31224-78-9**] in m-cresol at room temperature for 0.5 hr to yield poly[3,3'-(2'',6''-pyridinediyl)-6,6'-(p,p'- carbonyldiphenylene)di(5-phenyl-as-triazine)] [**51365-29-8**].

IC C08G
INCL 260050000
CC 36-3 (Plastics Manufacture and Processing)
ST triazine polymer dihydrazidine dicarbonyl; polytriazine adhesive dihydrazidine dicarbonyl
IT Polymerization
(of dibenzils with dihydrazidines, polytriazines from)
IT Plastics
RL: USES (Uses)
(triazine derivative polymers)
IT Adhesive tapes
(triazine polymer adhesives for)
IT 2615-11-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)
IT 3363-97-1P 21454-19-3P 22538-57-4P 22538-58-5P 24447-21-0P
28604-09-3P 29614-04-8P 29614-05-9P 29615-03-0P **29615-04-1P**
32763-08-9P 40404-43-1P 40404-44-2P 40404-45-3P 40404-46-4P
40404-47-5P 40404-48-6P 43147-42-8P 51900-26-6P 51900-40-4P
51900-52-8P 51900-53-9P 51900-63-1P 51900-64-2P 51900-65-3P
51900-66-4P 51900-67-5P 51900-68-6P 51900-69-7P 51900-70-0P
51913-94-1P 51930-24-6P 51930-25-7P 51938-90-0P 51986-97-1P
51986-99-3P 52053-00-6P
RL: PREP (Preparation)
(preparation of)
IT 21062-19-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aluminum chloride)
IT 7803-57-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dicyanopyridine)
IT 103-80-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diphenyl ether)
IT 623-26-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydrogen chloride)
IT 2893-33-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hyrazine hydrate)
IT 101-84-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenylacetyl chloride)
IT 302-01-2, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(with p-phenylenebis(methanimine)dihydrochloride)
IT **29615-04-1P**

RL: PREP (Preparation)
(preparation of)
RN 29615-04-1 HCAPLUS
CN 2,6-Pyridinedicarboximidic acid, dihydrazide, polymer with 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

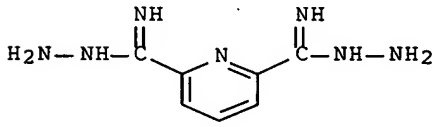
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

CRN 22538-57-4
CMF C7 H11 N7



L63 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:13472 HCAPLUS Full-text
DOCUMENT NUMBER: 74:13472
ORIGINAL REFERENCE NO.: 74:2175a,2178a
TITLE: Poly(phenyl-as-triaazines)
AUTHOR(S): Hergenrother, Paul M.; Kiyohara, D. E.
CORPORATE SOURCE: Polym. Sci. Lab., Boeing Sci. Res. Lab., Seattle, WA, USA
SOURCE: Journal of Macromolecular Science, Chemistry (1971), 5(2), 365-82
CODEN: JMCHBD; ISSN: 0022-233X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB High mol. weight soluble poly(phenyl-as-triazines) were prepared at ambient temperature in m-cresol by the cyclopolycondensation of 2,6-pyridinediyl dihydrazidine (diamidrazone) with various aromatic dibenzil type reactants. Clear lemon yellow films, which exhibited good toughness and flexibility, were cast from solution and formed clear yellow to orange solns. in CHCl3 or sym-tetrachloroethane at concns. as high as 30% solids. By TGA, poly(phenyl-as-triazines) exhibited a two-stage decomposition, commencing at 400°, in both air and N. The polymers exhibited excellent stability at 260° in air, but at 290° significant weight losses occurred.

CC 35 (Synthetic High Polymers)

ST polyphenyl triazines; triazines polyphenyl; diamidrazones cyclopolycondensation; cyclopolycondensation diamidrazones

IT Polymerization
(of benzil derivs. with pyridinedicarboximidic acid dihydrazide)

IT Dielectric loss
Glass temperature
(of triazine derivative polymers)

IT Heat-resistant materials
(triazine derivative polymers)

IT 28604-09-3 29187-70-0 29614-03-7 29614-04-8 29614-05-9 29615-03-0 **29615-04-1** 31497-61-7 31497-62-8 31497-63-9 31548-09-1 51900-70-0
RL: PRP (Properties)
(elec. and thermal properties of)

IT 29688-20-8P 29688-21-9P 29688-22-0P 29688-23-1P 29688-24-2P 29688-25-3P **31224-78-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

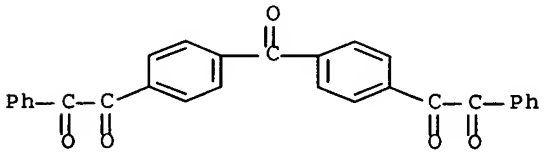
IT **29615-04-1**
RL: PRP (Properties)
(elec. and thermal properties of)

RN 29615-04-1 HCAPLUS

CN 2,6-Pyridinedicarboximidic acid, dihydrazide, polymer with 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

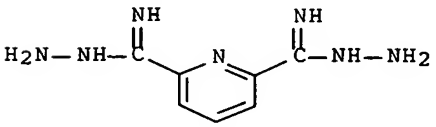
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

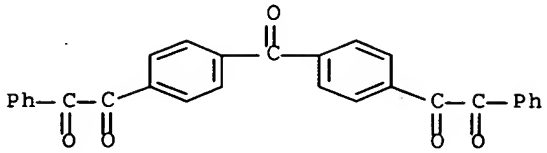
CRN 22538-57-4
CMF C7 H11 N7



IT **31224-78-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 31224-78-9 HCAPLUS

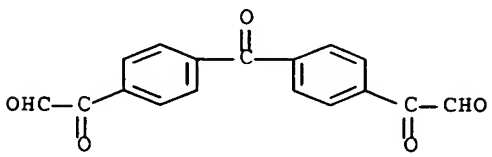
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:82685 HCAPLUS
DOCUMENT NUMBER: 60:82685
ORIGINAL REFERENCE NO.: 60:14441c
TITLE: Hexylbenzoic acid
INVENTOR(S): Belyaev, V. A.; Ustavshchikova, Z. F.; Vetrova, V. V.; Preobrazhenskii, N. A.
SOURCE From: Byul. Izobret. i Tovarnykh Znakov 1964(1), 12..
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 159511		19631228	SU	19621206
PRIORITY APPLN. INFO.:			SU	19621206

AB Hexylbenzoic acid is obtained by alkylation of PhMe by lower polymers of propylene (I) in the presence of a catalyst to give hexyltoluene (II), and catalytic oxidation of II by air O. To increase the output of the product and simplify the process, a tetramer of I is alkylated in the presence of AlCl3.
CC 35 (Noncondensed Aromatic Compounds)
IT 60534-93-2P, Benzoic acid, hexyl- **98595-37-0P**, Glyoxal, (carbonyldi-p-phenylene)di-
RL: PREP (Preparation)
(preparation of)
IT **98595-37-0P**, Glyoxal, (carbonyldi-p-phenylene)di-
RL: PREP (Preparation)
(preparation of)
RN 98595-37-0 HCAPLUS
CN Glyoxal, (carbonyldi-p-phenylene)di- (7CI) (CA INDEX NAME)



L63 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:82684 HCAPLUS Full-text
DOCUMENT NUMBER: 60:82684
ORIGINAL REFERENCE NO.: 60:14441a-c
TITLE: Glyoxyloylbenzophenone derivatives
INVENTOR(S): Edgerton, William H.

PATENT ASSIGNEE(S): Smith Kline & French Laboratories
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DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

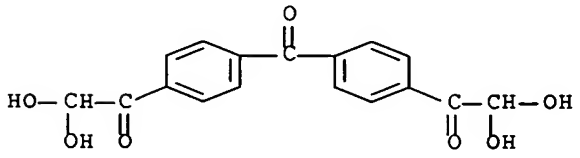
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3128312		19640407	US 1960-38770	19600627

PRIORITY APPLN. INFO.: US 19600627

GI For diagram(s), see printed CA Issue.

AB A mixture of 3.9 g. SeO2, 1 ml. H2O, and 15 ml. dioxane is heated on a steam bath while 5.6 g. 4-acetylbenzophenone in 60 ml. dioxane is added, and the mixture refluxed 6 hrs. to give 4-glyoxyloylbenzophenone (I) hydrate. The hydrate is heated in vacuo at 78° to yield I; MeOH solvate; BuOH solvate. A mixture of 10 g. 2,2'-diethylbenzophenone, 15 g. KMnO4, 15 g. Mg(NO3)2, and 100 ml. H2O is heated 30 hrs. at 80-5° to give 2,2'-diacetylbenzophenone (II). II is treated as above to give 2,2'-diglyoxyloylbenzophenone and its EtOH-solvate. Similarly prepared are 2-glyoxyloylbenzophenone hydrate and 4,4'-diglyoxyloylbenzophenone (III).

INCL 260591000
CC 35 (Noncondensed Aromatic Compounds)
IT 90607-62-8 93281-72-2 93428-40-1
(Derived from data in the 7th Collective Formula Index (1962-1966))
IT 27133-94-4P, Toluene, ar-hexyl- 91646-98-9P, Piperidine, 1-(N-methyl-N-nitrososulfanilyl)- 92496-87-2P, Benzophenone, 4-(dihydroxyacetyl)- 93012-29-4P, Benzophenone, 4-(methoxyglycoloyl)- 93012-29-4P, Glyoxal, (p-benzoylphenyl)-, 2-(methyl hemiacetal) **93322-66-8P**, Benzophenone, 4,4'-bis(dihydroxyacetyl)- **95698-35-4P**, Benzophenone, 4,4'-bis(ethoxyglycoloyl)- **95698-35-4P**, Glyoxal, (carbonyldi-p-phenylene)di-, bis[2-(ethyl hemiacetal)] 97192-86-4P, Glyoxal, (p-benzoylphenyl)- **98595-37-0P**, Glyoxal, (carbonyldi-p-phenylene)di-
RL: PREP (Preparation)
(preparation of)
IT **93322-66-8P**, Benzophenone, 4,4'-bis(dihydroxyacetyl)- **95698-35-4P**, Benzophenone, 4,4'-bis(ethoxyglycoloyl)- **98595-37-0P**, Glyoxal, (carbonyldi-p-phenylene)di-
RL: PREP (Preparation)
(preparation of)
RN 93322-66-8 HCAPLUS
CN Benzophenone, 4,4'-bis(dihydroxyacetyl)- (7CI) (CA INDEX NAME)



RN 95698-35-4 HCAPLUS
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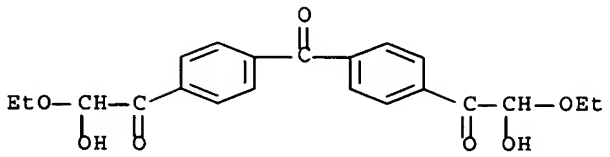
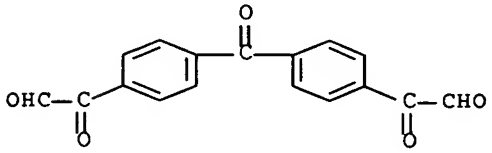


RN 98595-37-0 HCAPLUS
CN Glyoxal, (carbonyldi-p-phenylene)di- (7CI) (CA INDEX NAME)



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